

04-21821

0316005887  
SiPi Metals Corp  
SR/tech

## Phase II Environmental Investigation

**SiPi Metals Corporation**  
**1720 North Elston Avenue**  
**Chicago, Illinois**

*Prepared for:*  
**SiPi Metals Corporation**  
Chicago, Illinois

Clayton Project No. 15-04183.00.003  
September 14, 2004

ORIGINAL

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CLAYTON GROUP SERVICES, INC.  
3140 Finley Road  
Downers Grove, Illinois 60515  
630.795.3200

RELEASABLE

SEP 30 2004

REVIEWER MM

Illinois Environmental Protection Agency  
Bureau of Land  
Remedial Project Management Section  
1021 North Grand Avenue East  
P.O. Box 19276  
Springfield, Illinois 62794-9276

FOR ILLINOIS EPA USE:  
LOG NO. \_\_\_\_\_

## Site Remediation Program Form (DRM-2) (To Be Submitted with all Plans and Reports)

### I. Site Identification:

Site Name: SiPi Metals Corp.  
Street Address: 1720 North Elston  
City: Chicago Illinois Inventory I. D. Number: 0316005887  
IEMA Incident Number: \_\_\_\_\_

### II. Remediation Applicant:

Applicant's Name: Leslie S. Pinsof Company: SiPi Metals Corp.  
Street Address: 1720 North Elston  
City: Chicago State: IL ZIP Code: 60622 Phone: 773-276-0070

I hereby request that the Illinois EPA review and evaluate the attached project documents in accordance with the terms and conditions of the Environmental Protection Act (415 ILCS 5), implementing regulations, and the review and evaluation services agreement.

Remediation Applicant's Signature:  Date: 9/14/04

### III. Contact Person:

Contact's Name: Russ Chadwick Company: Clayton Group Services  
Street Address: 3140 Finley Road  
City: Downers Grove State: IL ZIP Code: 60515 Phone: 630-795-3218

### IV. Review & Evaluation Licensed Professional Engineer ("RELPE"), if applicable:

RELPE's Name: N/A Company: \_\_\_\_\_  
Street Address: \_\_\_\_\_  
City: \_\_\_\_\_ State: \_\_\_\_\_ ZIP Code: \_\_\_\_\_ Phone: \_\_\_\_\_  
Registration Number: \_\_\_\_\_ License Expiration Date: \_\_\_\_\_

All information submitted is available to the public except when specifically designated by the Remediation Applicant to be treated confidentially as a trade secret or secret process in accordance with the Illinois Compiled Statutes, Section 7(a) of the Environmental Protection Act, applicable Rules and Regulations of the Illinois Pollution Control Board and applicable Illinois EPA rules and guidelines. The Illinois EPA is authorized to require this information under Sections 415 ILCS 5/58 - 58.12 of the Environmental Protection Act and regulations promulgated thereunder. Disclosure of this information is required as a condition of participation in the Site Remediation Program. Failure to do so may prevent this form from being processed and could result in your plan(s) or report(s) being rejected. This form has been approved by the Forms Management Center.

# V. Project Documents Being Submitted:

Document Title: <b>Phase II Environmental Site Assessment</b>		Date of Preparation of Plan or Report: <b>08/14/04</b>
Prepared by: <b>Clayton Group Services</b>	Prepared for: <b>SiPi Metals Corporation</b>	
Type of Document Submitted: <input type="checkbox"/> Site Investigation Report - Comprehensive <input type="checkbox"/> Site Investigation Report - Focused <input type="checkbox"/> Remediation Objectives Report-Tier 1or 2 <input type="checkbox"/> Remediation Objectives Report-Tier 3 <input type="checkbox"/> Remedial Action Plan <input type="checkbox"/> Remedial Action Completion Report		
<input type="checkbox"/> Sampling Plan <input type="checkbox"/> Health and Safety Plan <input type="checkbox"/> Community Relations Plan <input type="checkbox"/> Risk Assessment <input type="checkbox"/> Contaminant Fate & Transport Modeling <input type="checkbox"/> Environmental Remediation Tax Credit - Budget Plan Review Other: <b>Phase II Report</b>		

Document Title: _____		Date of Preparation of Plan or Report: _____
Prepared by: _____	Prepared for: _____	
Type of Document Submitted: <input type="checkbox"/> Site Investigation Report - Comprehensive <input type="checkbox"/> Site Investigation Report - Focused <input type="checkbox"/> Remediation Objectives Report-Tier 1or 2 <input type="checkbox"/> Remediation Objectives Report-Tier 3 <input type="checkbox"/> Remedial Action Plan <input type="checkbox"/> Remedial Action Completion Report		
<input type="checkbox"/> Sampling Plan <input type="checkbox"/> Health and Safety Plan <input type="checkbox"/> Community Relations Plan <input type="checkbox"/> Risk Assessment <input type="checkbox"/> Contaminant Fate & Transport Modeling <input type="checkbox"/> Environmental Remediation Tax Credit - Budget Plan Review Other: _____		

Document Title: _____		Date of Preparation of Plan or Report: _____
Prepared by: _____	Prepared for: _____	
Type of Document Submitted: <input type="checkbox"/> Site Investigation Report - Comprehensive <input type="checkbox"/> Site Investigation Report - Focused <input type="checkbox"/> Remediation Objectives Report-Tier 1or 2 <input type="checkbox"/> Remediation Objectives Report-Tier 3 <input type="checkbox"/> Remedial Action Plan <input type="checkbox"/> Remedial Action Completion Report		
<input type="checkbox"/> Sampling Plan <input type="checkbox"/> Health and Safety Plan <input type="checkbox"/> Community Relations Plan <input type="checkbox"/> Risk Assessment <input type="checkbox"/> Contaminant Fate & Transport Modeling <input type="checkbox"/> Environmental Remediation Tax Credit - Budget Plan Review Other: _____		

# VI. Professional Engineer's Seal or Stamp:

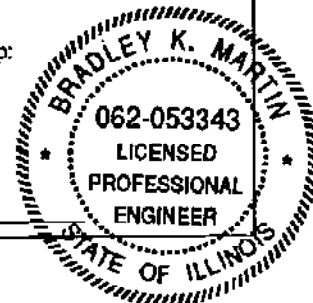
I attest that all site investigations or remedial activities that are the subject of this plan(s) or report(s) were performed under my direction, and this document and all attachments were prepared under my direction or reviewed by me, and to the best of my knowledge and belief, the work described in the plan and report has been designed or completed in accordance with the Illinois Environmental Protection Act (415 ILCS 5), 35 Ill. Adm. Code 740, and generally accepted engineering practices, and the information presented is accurate and complete.

Engineer Name: Bradley K. Martin Professional Engineer's Seal or Stamp:

Company: Clayton Group Services Phone: 630-795-3249

Registration Number: 062-053343

Signature: Bradley K. Martin License Expiration Date: 11/30/2005



3140 Finley Road  
Downers Grove, IL 60515  
630.795.3200  
Fax: 630.795.1130



September 14, 2004

Mr. Thomas Dimond, Esquire  
**MAYER, BROWN, ROWE, & MAW**  
190 South LaSalle Street  
Chicago, Illinois 60603-3441

Clayton Project 15-04183.00-003

**Re: Phase II Environmental Investigation  
SiPi Metals Corporation  
1720 Elston Avenue  
Chicago, Illinois**

Dear Mr. Dimond:

Pursuant to your request, Clayton Group Services, Inc. has conducted a Phase II Environmental Investigation of the subject property, SiPi Metals Corporation (SiPi), located at 1720 Elston Avenue, Chicago, Illinois (Figure 1). The purpose of this investigation was to confirm or deny impact at each recognized environmental condition, to collect site-specific soil data (i.e. fraction of organic content) to assist in the potential development of site-specific cleanup objectives, if necessary, and to characterize the groundwater beneath the property. The purpose of this report is to provide you with a description of the investigative activities and results for this investigation.

If you have any questions or comments, please call me at (630) 795-3204 or Russ Chadwick at (630) 795-3218.

Sincerely,

A handwritten signature in dark ink, appearing to read "Marie E. Mueller".

**Marie E. Mueller**  
Project Manager  
Environmental Services

A handwritten signature in dark ink, appearing to read "Russell J. Chadwick".

**Russell J. Chadwick, P.G.**  
Vice President, Midwest Regional Director  
Environmental Services

cc: Les Pinsof, SiPi Metals (*2 copies*)  
Ken Perlman, Bailey Borlack Nadelhoffer & Carrol (*1 copy*)  
Burt Friedman, Capital Assoc. (*1 copy*)  
Larry Gritton, Smithfield (*1 copy*)

jmf





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## EXECUTIVE SUMMARY

Pursuant to your request, Clayton Group Services, Inc. (Clayton) has conducted a Phase II Environmental Investigation of the subject property, SiPi Metals Corp. (SiPi), located at 1720 Elston Avenue, Chicago, Illinois (Figure 1). The purpose of this investigation was to confirm or deny impact at each of the twenty-one (21) Recognized Environmental Conditions (REC) that were identified in the August Phase I Environmental Site Assessment of the subject property. The purpose of this report is to provide you with a description of the investigative activities and results from this investigation.

From August 9<sup>th</sup> through August 13<sup>th</sup>, 2004, Clayton advanced a total of twenty-seven (27) soil borings at the subject property. Twenty-one (21) of the borings were drilled using a Geoprobe to facilitate collection of soil and/or groundwater grab samples. Six (6) of the borings were drilled using a conventional drill rig using hollow stem augers to facilitate installation of 2-inch diameter groundwater monitoring wells, constructed with PVC screens and risers.

All of the samples collected were submitted to an offsite laboratory for analyses. The soil samples were analyzed for one or more of the following: United States Environmental Protection Agency (USEPA) SW-846 Method 5035/8260B was used for volatile organic compounds (VOCs), Method 8270C was used for polynuclear aromatics (PNAs), Method 6010B was used for total and total characteristic leaching procedure (TCLP) metals, Method 7470A for mercury analysis, Method 9014 was used for total cyanide, or Method 8082 was used for polychlorinated biphenyls (PCBs). The groundwater grab samples were analyzed one or more of the following: VOCs, BTEX compounds, PNAs, or total metals. All of the monitoring well groundwater samples were analyzed for VOCs, PNAs, and total metals. The sample results were compared to commercial use soil remediation objectives (SROs) and groundwater remediation objectives (GROs) for Class II groundwater established under Illinois EPA's Tiered Approach to Corrective Action Objectives (TACO) or to Toxicity Characteristic Leaching Procedure (TCLP) levels established by federal regulations.

Based on observations, groundwater water elevation data, and soil and groundwater analytical results collected during this Phase II Investigation, the following conclusions were developed:

- I. In general, the geology beneath the subject property consists of sandy fill and/or topsoil underlain by silty clay. The topsoil and/or fill ranges in thickness from 1.5 to 9.0 feet. Groundwater was encountered at the interface between the fill material and the native silty clay. Based on water level elevations in the groundwater monitoring wells, the general groundwater flow direction is to the east/southeast.



2. Based on the results from the groundwater samples collected from the groundwater monitoring wells, no VOCs or PNAs were detected in any of the groundwater samples. In addition, no total metal constituents were detected in any of the samples except barium; however, all of the barium concentrations were below TACO Tier 1 Class II GROs.
3. Based on the soil sample and groundwater grab sample data, the following RECs were identified as potential sources of impact that may require additional investigation:
  - A. REC #2 – 9,000-gallon abandoned heating oil UST. PNAs were identified at concentrations above their respective Class II GROs.
  - B. REC #3 & #4 – Historic Foundry/Unknown Fill Material. PNAs and total metals were detected above the TACO Tier 1 soil ingestion exposure route and groundwater ingestion exposure route SROs. In addition, the fill material exhibited TCLP lead at levels above the Tier 1 groundwater ingestion SROs and the toxicity characteristic hazardous waste threshold (5.0 mg/L).
  - C. REC #5 – Transformer Release. PNAs, PCBs, and total metals were detected at concentrations above the TACO Tier 1 soil ingestion exposure route SROs. The detected PCBs were below the hazardous waste threshold. However, the soil and fill material exhibited TCLP lead (21.8 mg/l and 96.1 mg/l) at levels above the toxicity characteristic hazardous waste threshold (5.0 mg/L).
  - D. REC #6 – Potential Hydraulic Oil Release-Scrap metal briquetter. Total metals were detected at concentrations above the TACO Tier 1 soil ingestion exposure route SROs. In addition, the TCLP lead was present at a concentration above the Tier 1 groundwater ingestion SRO.
  - E. REC #7 – Potential Oil Release from Compressors. Naphthalene was detected above Tier 1 soil inhalation SROs. Total lead was detected at concentrations above TACO Tier 1 ingestion exposure route SROs. TCLP lead was detected at concentrations above TACO Tier 1 groundwater ingestion SROs. In addition, PNAs were detected in a groundwater grab sample at concentrations above their respective Class II GROs.
  - F. REC #8 – Potential Hydraulic Oil Release-Pouring Conveyor. PNAs and total metals were detected at concentrations above the TACO Tier 1 soil ingestion exposure route SROs and groundwater ingestion exposure route SROs. TCLP lead was detected at concentrations above TACO Tier 1 groundwater ingestion SROs and was detected at a concentration of 21.8 mg/L, which is above the toxicity characteristic hazardous waste threshold (5.0 mg/L).



- G. REC #9 – Abandoned 2,000-Gallon Gasoline UST. Benzene was detected at concentrations above the Tier 1 soil inhalation and groundwater ingestion exposure route SROs.
- H. REC #11 – Former Bulk Oil Storage. PNAs were detected at concentrations above the TACO Tier 1 ingestion exposure route SROs.
- I. REC #12 – Former Slag Pile (REC #12). Total lead was detected at concentrations above the Tier 1 soil ingestion SRO and the TCLP lead concentration was above the TACO Tier 1 groundwater ingestion exposure route SROs.
- J. REC #15 – Former Flue Dust Loading Area. Total lead was detected at concentrations above the TACO Tier 1 soil ingestion SRO and the TCLP lead concentration was above the TACO Tier 1 groundwater ingestion exposure route SRO.
- K. REC #16 – Railroad Tracks. TCLP lead was detected at concentrations above the TACO Tier 1 groundwater ingestion exposure route SROs.
- L. REC #20 – Unknown Fill Material in the Forsyth Building – 1672 North Elston Avenue. Benzo(a)anthracene was detected at concentrations above Tier 1 soil ingestion exposure route SROs. Total lead was detected at concentrations above the TACO Tier 1 soil ingestion SRO and the TCLP lead concentration was above the TACO Tier 1 groundwater ingestion exposure route SROs.
- 4. REC #21 – Potential Hydraulic Oil Release-Howard Medical Building. No samples were collected at this location due to lack of access to the building during the investigation.
- 5. No further investigation is necessary as to REC Numbers 1, 10, 13, 14, 17, 18, and 19.



## **1.0 INTRODUCTION/BACKGROUND**

Pursuant to your request, Clayton Group Services, Inc. (Clayton) has conducted a Phase II Environmental Investigation of the subject property, SiPi Metals Corp. (SiPi), located at 1720 Elston Avenue, Chicago, Illinois (Figure 1). The purpose of this investigation was to confirm or deny impact at each of the twenty-one (21) Recognized Environmental Conditions (REC) that were identified in the August Phase I Environmental Site Assessment of the subject property. The purpose of this report is to provide you with a description of the investigative activities and results from this investigation.

The subject property was entered into the Illinois Environmental Protection Agency's (Illinois EPA) voluntary Site Remediation Program (SRP) in June 2004. As part of the SRP program, a Phase I Environmental Site Assessments (Phase I ESA) of the subject property was completed by Clayton in August 2004. The Phase I ESA identified the following recognized environmental condition (REC) at the Site:

### **Main Building 1720 Elston, North Section**

1. An area in the northeast corner of the building was formerly used to process metals out of spent acidic plating solutions (a process now occurring at the south end of the building – refer to REC #9). The area was reportedly bermed and sealed for containment but has never been evaluated.

### **Main Building 1720 Elston, Middle Section**

2. A 9,000-gallon heating oil underground storage tank (UST) is situated near the center of the middle building. The tank reportedly consists of a railroad tank car. This tank was suspected to have been leaking. It was removed from service and filled with pea gravel in approximately 1980. This UST had underground lines present that directed fuel oil to the Taylor Baghouse. The lines were also suspected to have been leaking.
3. Historic foundry operations were conducted in this portion of the building. It is possible that there is metal slag and/or residual metal dust onsite because of this operation.
4. Middle section of main building was brought up to dock height with unknown fill reported to contain cinders. Perched water under this part of the building is reported to have come from leaky quench tank pits and machine pits, and may contain metals. A machine pit under the pouring conveyor equipment was reported to be leaking wash water from cooling the ingots to the subsurface as well. In addition, a one-ton electric induction furnace has a deep-water pit and associated deeper trough (~20 to 25 feet deep). This system would have manufactured an alloy with up to 10%



chromium content. The trough was reported to have been leaking prior to its removal from service.

5. SiPi personnel reported that, approximately 15 years ago, there had been a transformer explosion in the group of four ComEd transformers located on the western roof of the middle section of the building. Oils were reported to have run down the gutters and into the storm drains to the subsurface storm sewer system. It is not known if the oil released contained PCBs.
6. A scrap metal briquetter is located in the northwest portion of this building section. The equipment contains 1,200 gallons of hydraulic oil and is located over a pit to recycle the dripped or over-sprayed oils. The integrity of this pit is unknown.
7. A room containing two rotary screw air compressors is present in the south end of this section of the building. One of these units was placed in a recessed pan, and both displayed significant oil staining of the surrounding concrete.
8. Two hydraulic units serve the pouring conveyor located along the east wall of the building. Oily staining was noted in the area, and blackened bricks were observed on the exterior of the building in this area.

#### **Main Building 1720 Elston, South Section**

9. A former 2,000-gallon gasoline UST is present underneath the southern portion of the main building in the liquids storage room of the cyanide area. The UST was reported to have been removed from service and filled with pea gravel in 1981.
10. A gasoline UST was formerly located at the west end of the southern wall of the main building. A dispensing pump for this UST was located at the southern end of the western wall on a concrete pad that is still present. This UST was removed in 1990 at the time the two 10,000-gallon fuel oil USTs (see REC #15) were removed. No closure documentation was available for review.

#### **North Side of Property**

11. Formerly two heating oil above ground storage tanks (ASTs) operated as part of a bulk fuel oil transfer station. The oil pump house was situated west of the ASTs and was reportedly used to control transfer of oil from railcars to the ASTs. The original tanks were situated along the northeastern property boundary. The tanks were subsequently relocated to the north central portion of the property and were secured within concrete containment (walls and floor). The ASTs were decommissioned in 1973 and cut in half; the shells are currently used for storage sheds along the western property line.



### **West Side of Property**

12. A slag pile was reported to have formerly been present along the western wall of the Taylor baghouse. The slag was removed prior to paving of this area circa 1974.
13. A brick-lined storm sewer (installed circa early 1900s) runs the length of the west side of the property. This sewer collects storm water from the subject property only. This water is subsequently pumped to an onsite, concrete-lined, settling reservoir where sediment that contains residual concentrations of metals is recycled at the facility. It is possible the sewer and/or the soils/fill material surrounding this sewer contain residual metals concentrations.
14. Two 10,000-gallon fuel oil USTs were present in the area north of the Taylor Baghouse Building, currently occupied by a propane AST. These tanks were installed in 1974 and were reportedly removed in 1990. There is no record of a release from these two tanks; however, an underground pipeline connected these two tanks to the building to the east. It is reported the pipeline is still present. No closure documentation was provided to Clayton for review.
15. The area north of the Wheelabrator Baghouse was formerly used to load flue dust from the smelter into rail cars.
16. Current and former railroad tracks are present within easements on the western portions of the site that have been present since at least 1914.

### **Besly Building – 1660 N. Besly Court**

17. The former operations in this building reportedly included the use of paints and solvents.
18. The building contains two freight elevator systems. One system has been disassembled, and the piston is still in place, but the shaft could not be observed for evidence of staining or leaks. The other elevator is still in use and displayed oily staining around the system's hydraulic reservoir, as well as a significant quantity of dark liquid in the base of the elevator shaft.
19. A "locomotive warehouse" was situated on this property in a 1914 Sanborn Fire Insurance Map. It is not known if this warehouse was used to store locomotives or used to conduct maintenance activities.

### **Forsyth Building – 1672 North Elston Avenue**

20. This building was constructed on top of several feet of fill material to raise the truck doors to dock height. The fill beneath the building is of unknown origin.





**Howard Medical Building - 1690 North Elston Avenue**

21. A hydraulic freight elevator is present in the building. The hydraulic reservoir in the basement was observed to have stained concrete on the floor, which may have been moisture or could have been spilled oils.



## **2.0 CLAYTON'S PHASE II SITE ASSESSMENT**

The data collected from the subject property was compared to the Illinois EPA Tiered Approach to Corrective Action Objectives (TACO) regulations to evaluate if any detected chemical compounds in the soil or groundwater samples exceed the Illinois EPA TACO Tier I Soil Remediation Objectives (SROs) or Class II Groundwater Remediation Objectives (GROs). Data for Toxicity Characteristic Leaching Procedure (TCLP) samples was compared to the thresholds for hazardous waste characteristics established by federal law.

### **2.1 GEOPROBE SOIL BORINGS**

From August 9<sup>th</sup> through August 13<sup>th</sup>, 2004, Clayton advanced twenty-one soil borings on the subject property using a hydraulic push method. Hydraulics were used to advance a 4-foot-long sampling tube fitted with disposable acetate liners in the soil. Upon completion, the soil borings were backfilled to ground surface using bentonite. Soil boring locations are presented in Figure 2. A summary of the number of soil samples and groundwater grab samples, along with the analyses is presented in Table 1.

All drilling and sampling equipment were decontaminated, prior to and after each boring and between each sampling interval, using a detergent and distilled water wash followed by a distilled water rinse. All investigation-derived waste was containerized and secured in labeled 55-gallon drums.

#### **2.1.1 Soil Sample Collection**

Soil samples were initially scanned for organic vapors upon retrieval using a Photovac® photoionization detector (PID) equipped with a 10.6 electron volt (eV) probe. The PID calibrated to an isobutylene standard, measures total concentrations of organic vapors. The PID cannot identify or quantify specific constituents. Discreet soil sampling was performed continuously from ground surface to the completion depth of each boring. Soil samples collected were typically split into two portions; one portion was placed in a sealed plastic bag for headspace analysis with the PID and geologic classification, and the other portion was placed into clean laboratory-provided containers for potential laboratory-chemical analysis. The first sample was used to gauge the degree of soil impact if present in the upper portion. The second underlying sample was collected from native soil, if groundwater was not encountered, was intended to document the vertical extent of impact (i.e. a clean sample below the initial soil sample). The third sample, if groundwater was not encountered, was placed on hold (e.g. not tested) at the laboratory in the event the second sample still contained residual contaminants above the acceptable levels. A Clayton geologist used the Unified Soil Classification System to describe and classify the soil samples. The soil sample descriptions and the field screening results were recorded on boring logs (Attachment A).



## 2.1.2 Groundwater Sample Collection

The purpose of the groundwater grab samples was to facilitate collection of groundwater samples from beneath the building from areas where installation of permanent monitoring wells would be difficult or impractical due to the ongoing operations at the facility.

Groundwater samples were collected from five soil borings (B-2, B-3, B-6, B-8, and B-22) by placing a temporary one-inch-diameter screen and riser in the borehole and retrieving the water using a low-flow peristaltic pump. The water was directly pumped into laboratory-provided containers. The first water sample was collected for volatile organic analysis (VOC) using preserved sample vials, which were filled with as little agitation as possible. Other sample bottles were filled and preserved as specified by the laboratory. Metals samples were filtered using a 0.45-micron in-line filter prior to being collected in a laboratory provided bottle. Sample containers were labeled and placed in an iced cooler pending laboratory analysis.

## 2.2 MONITORING WELLS

### 2.2.1 Installation and Surveying

From August 9<sup>th</sup> through August 11<sup>th</sup>, 2004, Clayton advanced six soil borings (B-11, B-14, B-17, B-21, B-27, and B-28) using a Diedrich D-120 drill rig. These soil borings were advanced using a continuous flight hollow stem augers. Soil samples were collected using a standard two-inch split barrel sampler driven by a 140-pound hammer. These borings were completed as 2-inch diameter PVC monitoring wells and located in the following areas:

- Monitoring Well MW-1 (B-27) was completed on the western side of the subject property to assess the upgradient property boundary;
- Monitoring Well MW-5 (B-28) was installed on the east side of the subject property to access the downgradient property boundary;
- Monitoring Well MW-2 (B-14) was installed in the north central portion of the subject property near the brick lined sewer;
- Monitoring Well MW-4 (B-17) was installed on the south central portion of the property near the former flue dust loading area; and
- Monitoring Wells MW-3 (B-11) and MW-6 (B-21) were completed as monitoring wells in the north and south portions of the subject property, respectively.

The monitoring well locations are presented in Figure 2.



On August 19, 2004, Clayton surveyed the monitoring wells and collected an initial round of groundwater levels. Groundwater was encountered at depths ranging from 2.58 to 11.26 feet below ground surface (bgs). Based on the top of casing elevations and groundwater levels, groundwater flow direction is towards the east/southeast. Groundwater elevations and flow direction are presented in Figure 3.

## 2.2.2 Development and Groundwater Sampling

Prior to sample collection each well was developed by removing ten borehole volumes and obtaining stable water quality parameters, or by bailing the well dry twice using a disposable bailer. The wells were developed to restore the natural permeability of the formation adjacent to the borehole, remove clay, silty and other fines from the filter pack and well screen so that water samples will not be abnormally turbid or contain undue suspended matter, and remove contaminants from the well, filter pack, and formation material introduced during drilling. The newly constructed wells were allowed to stabilize for a minimum of 48 to 72 hours before sampling was performed.

The wells were sampled using a low-flow technique using an adjustable peristaltic pump at a low setting to minimize sediment in the groundwater samples. The wells were purged with minimal draw down until water quality parameters stabilized. Samples were then collected for total metals and polynuclear aromatics (PNAs). The peristaltic pump was adjusted to a high setting and three well volumes were then removed until water quality parameters had stabilized and/or (as in the case of MW-3) the well was bailed dry using a disposable bailer prior to sample collection. The VOC samples were then collected using a disposable bailer and collected in preserved sample vials. Sample containers were labeled and placed in an iced cooler pending laboratory analysis.

## 2.3 SITE HYDROGEOLOGY

In general, the geology beneath the subject property consists of sandy fill and/or topsoil underlain by silty clay. The topsoil and/or fill ranges in thickness from 1.5 to 9.0 feet. The topsoil and/or fill are underlain by silty clay to the termination of the borings at 8.0 to 16.0 feet bgs. Clayton encountered groundwater at each soil boring/monitoring well location at the interface between the fill material and the native silty clay. Based on groundwater monitoring well elevations and depth to water measurements, the general groundwater flow direction is to the east/southeast with a groundwater depression at the wells near the west side of the subject building (MW-2 and MW-4). Groundwater elevations and flow direction are presented in Figure 3.



## **2.4 LABORATORY ANALYSIS OF SAMPLES**

### **2.4.1 Soil Samples**

The soil samples were analyzed for the constituents presented in Table 1. The soil samples were submitted for analysis to First Environmental Laboratories (First) located in Naperville, Illinois. United States Environmental Protection Agency (USEPA) SW-846 Method 5035/8260B was used for volatile organic compounds (VOCs), Method 8270C was used for polynuclear aromatics (PNAs), Method 6010B was used for total and total characteristic leaching procedure (TCLP) metals, Method 7470A for mercury analysis, Method 9014 was used for total cyanide, and Method 8082 was used for polychlorinated biphenyls (PCBs).

### **2.4.2 Groundwater Grab Samples**

One groundwater sample was collected from five soil borings for the constituents associated with the RECs presented in Table 1. The groundwater samples were submitted to First for VOC, PNA, benzene, toluene, ethylbenzene, and xylenes (BTEX), and/or total metal analysis.

### **2.4.3 Groundwater Samples**

One groundwater sample was collected from each monitoring well. The groundwater samples were submitted to First for VOCs, PNAs, and total metal analysis.

## **3.0 DISCUSSION OF ANALYTICAL RESULTS**

### **3.1 SOIL AND GROUNDWATER GRAB SAMPLE ANALYTICAL RESULTS**

Under the TACO approach, the compounds detected in soil are evaluated based upon the risk presented by their concentration levels. For soil, the risks presented are: (1) vapors from contaminated soils may be inhaled; (2) contaminated soil may be ingested; or (3) soil contaminants may migrate to groundwater and be ingested through drinking the water. Different SROs apply to each of the "exposure routes," which is the phrase used in TACO to describe the different ways contamination presents risks. Soil sample results were compared to the Illinois EPA's TACO Tier 1 Commercial/ Industrial SROs and (for the leachable metals only) characteristic toxicity hazardous waste thresholds from 40 CFR Part 261.24. For each metal, the hazardous waste threshold is higher than the Tier 1 Commercial/Industrial SROs, thus TCLP data that is below the SROs is also below hazardous waste thresholds. Groundwater grab sample results were compared to TACO Tier 1 Class II GROs.



BTEX, PNAs, total and TCLP metals, and PCBs were detected in some of the soil samples collected at the subject property. The soil analytical results are listed in Table 2. The groundwater analytical results are listed in Table 3. The analytical data are provided in Attachment B.

### **3.1.1 Former Plating Solution Process Area (REC #1)**

Total and TCLP metals were detected in soil boring B-1A (2-4 feet) in the former plating solution process area. However, no total metal or TCLP metal constituent was detected at concentrations above TACO Tier 1 SROs. No further investigation is necessary regarding this REC.

### **3.1.2 9,000-Gallon Abandoned Heating Oil UST (REC #2)**

No constituent was detected in either soil sample collected from soil boring B-2, located near the 9,000-gallon heating oil UST, except benzo(a)anthracene. However, benzo(a)anthracene was detected at concentrations below TACO Tier 1 SROs.

PNAs were detected in groundwater grab samples GW-2. The concentrations of benzo[a]anthracene, benzo[b]fluoranthene, and benzo[k]fluoranthene, identified at GW-2 were above their respective Class II GROs.

Additional investigation may be necessary to delineate PNA concentrations above Class II GROs.

### **3.1.3 Historic Foundry/Unknown Fill Material (REC #3 & REC #4)**

PNAs, total metals, and TCLP metals were detected in soil samples B-3A, B-5A, B-6A, and B-7A located in the historic foundry and fill material location. Naphthalene was detected in soil samples B-6A and B-7A above Tier 1 inhalation SROs. Additionally, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, and dibenzo(a,h)anthracene were detected in B-7A at concentrations above the TACO Tier 1 ingestion exposure route SROs and groundwater ingestion exposure route SROs.

Total arsenic concentrations above ingestion SROs was detected in soil sample B-5A (4 to 6 feet). Total lead was detected in soil samples B-5A (4 to 6 feet), B-6A (2 feet), and B-7A (1 to 2 feet) at concentrations well above TACO Tier 1 ingestion exposure route SROs. TCLP barium was detected in B-7A (1 to 2 feet) at concentrations above groundwater ingestion SROs. TCLP lead was detected at concentrations above TACO Tier 1 groundwater ingestion SROs in soil borings B-5A (4 to 6 feet), B-6A (2 feet), and B-7A (1 to 2 feet). Additionally, TCLP lead concentration in soil boring B-7A (1 to 2 feet) was detected at 21.8 mg/L, which is above the toxicity characteristic hazardous waste threshold (5.0 mg/L).



Total metals and PNAs were detected in groundwater grab sample GW-3. Total lead was also detected in groundwater grab sample GW-3 at concentrations above TACO Class II GROs. However, no PNA constituent was detected above TACO Tier 1 Class II GROs.

Further assessment is necessary to further delineate the extent of metals in soil at B-7 and to further delineate soil above ingestion/inhalation SROs throughout the historic foundry operations.

### **3.1.4 Potential Transformer Release (REC #5)**

PNAs, total and TCLP metals, and PCBs were detected in the soil sample B-4 located near the location of a potential transformer release. All PNAs were detected at concentrations below TACO Tier 1 SROs except benzo(a)anthracene, which was detected in soil boring B-4B (3 feet) at concentrations above ingestion SROs.

Total arsenic was detected in soil sample B-4B (3 feet) at a concentration above TACO Tier ingestion SROs. Total lead was detected in soil samples B-4A (1.5 feet) and B-4B (3 feet) at concentrations above TACO Tier 1 ingestion SROs. Additionally, TCLP lead was detected in these soil samples at concentrations above the toxicity characteristic hazardous waste threshold.

PCBs (arochlor 1254) were detected in soil sample B-4B (3 feet) at a concentration of 3.44 mg/kg above TACO Tier 1 ingestion SRO of 1.0 mg/kg. It should be noted that the detected concentration of PCBs is well below the hazardous waste threshold of PCBs, which is 50 mg/kg.

Further assessment is necessary to further delineate the extent of metals in soil at B-4 and to further delineate soil above ingestion SROs in the area near the potential transformer release.

### **3.1.5 Potential Hydraulic Oil Release-Scrap Metal Briquetter (REC #6)**

PNAs, total metals, and TCLP metals were detected in soil sample B-5A (4 to 6 feet) located near the potential hydraulic oil release at the scrap metal briquetter. Total arsenic concentrations above ingestion SROs was detected in soil sample B-5A (4 to 6 feet). Total lead was detected at concentrations above TACO Tier 1 ingestion exposure route SROs. TCLP lead was detected at concentrations above TACO Tier 1 groundwater ingestion SROs in soil borings B-5A (4 to 6 feet).

The sample results establish the lack of impact from the potential hydraulic oil release. Additional investigation may be necessary to delineate metal concentrations above ingestion SROs in connection with RECs 3 and 4.



### **3.1.6 Potential Oil Release from Compressors (REC #7)**

PNAs, total metals, and TCLP metals were detected in soil sample B-6A located near the potential oil release from compressors in the middle section of the Main building. Naphthalene was detected in soil samples B-6A above Tier 1 inhalation SROs.

Total lead was detected in soil samples B-6A (2 feet) at concentrations well above TACO Tier 1 ingestion exposure route SROs. TCLP lead was detected at concentrations above TACO Tier 1 groundwater ingestion SROs in soil borings B-6A (2 feet).

Total metals and PNAs were detected in groundwater grab sample GW-6. The concentrations of benzo[a]anthracene, benzo[b]fluoranthene, benzo[k]fluoranthene, chrysene, benzo[a]pyrene, indeno(1,2,3-cd)pyrene, and dibenzo(a,h)anthracene identified at GW-6 were above their respective Class II GROs. However, no total metal constituent was detected above TACO Tier 1 Class II GROs.

Further assessment may be necessary to further delineate soil above ingestion/inhalation SROs throughout the area located near the potential oil release from compressors in the middle section of the Main building.

### **3.1.7 Potential Hydraulic Oil Release-Pouring Conveyor (REC #8)**

PNAs, total metals, and TCLP metals were detected in soil sample B-7A located near potential hydraulic oil release from the pouring conveyor in the middle section of the Main building. Naphthalene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(k)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, and dibenzo(a,h)anthracene were detected in B-7A at concentrations above the TACO Tier 1 ingestion exposure route SROs and groundwater ingestion exposure route SROs.

Total lead was detected in soil sample B-7A (1 to 2 feet) at concentrations well above TACO Tier 1 ingestion exposure route SROs. TCLP barium was detected at concentrations above groundwater ingestion SROs. TCLP lead was detected at concentrations above TACO Tier 1 groundwater ingestion SROs in soil borings B-7A (1 to 2 feet). Additionally, TCLP lead concentration in soil boring B-7A (1 to 2 feet) was detected at 21.8 mg/L, which is above the toxicity characteristic hazardous waste threshold (5.0 mg/L).

Further assessment is necessary to further delineate the extent of metals in soil at B-7 and to further delineate soil above ingestion/inhalation SROs associated with the potential hydraulic oil release from the pouring conveyor in the middle section of the Main building.





### **3.1.8 Abandoned 2,000-Gallon Gasoline UST (REC #9)**

BTEX, Total and TCLP metals were detected in soil boring B-8 located at the abandoned 2,000-gallon gasoline UST. However, no constituents were detected at concentrations above TACO Tier 1 SROs except benzene. Benzene was detected in soil sample B-8A (2 to 4 feet) at concentrations above the Tier 1 inhalation and groundwater ingestion exposure route.

Total metals were detected above laboratory limits in groundwater grab sample GW-8. However, no total metal constituent was detected above TACO Tier 1 Class II GROs.

Further investigation may be necessary to further delineate soil above inhalation SROs associated with this REC.

### **3.1.9 2,000-Gallon Gasoline UST-Removed (REC #10)**

No BTEX compounds were detected in the soil samples collected from soil boring B-9. No further investigation is necessary regarding this REC.

### **3.1.10 Former Bulk Oil Storage (REC #11)**

PNAs were detected in soil sample B-10 and B-12 located in the former bulk oil storage area. However, no PNA constituent was detected in B-10 or B-12 at concentrations above TACO Tier 1 SROs.

BTEX and PNAs were detected in soil sample B-11A (4 to 6 feet) located near the former bulk oil storage area. Naphthalene, benzo(a)anthracene, benzo(b)fluoranthene, benzo(a)pyrene, indeno(1,2,3-cd)pyrene, and dibenzo(a,h)anthracene were detected at concentrations above the TACO Tier 1 ingestion exposure route SROs.

Further investigation may be necessary to further delineate soil above ingestion SROs associated with this REC.

### **3.1.11 Former Slag Pile (REC #12)**

Total and TCLP metals were detected in soil borings B-13A (1.5 feet) and B-13B (3 feet) in the former slag pile area. However, no total metal or TCLP metal constituents were detected at concentrations above TACO Tier 1 SROs except the total lead and TCLP lead concentrations in soil sample B-13A (1.5 feet). Total lead was detected at concentrations above the soil ingestion SRO and the TCLP lead concentration was above the TACO Tier 1 groundwater ingestion exposure route SRO.

Further investigation may be necessary to further delineate soil above the soil ingestion and groundwater ingestion exposure route SROs and associated with this REC.



### **3.1.12 Brick-Lined Storm Sewer (REC #13)**

Total and TCLP metals were detected in soil boring B-14 located near the brick lined storm sewer. However, no total metal or TCLP metal constituent was detected at concentrations above TACO Tier 1 SROs.

No further investigation is necessary regarding this REC.

### **3.1.13 Former 10,000-Gallon Heating Oil UST (REC #14)**

PNAs were detected in soil boring B-15A (2 to 4 feet) located at the location of the former 10,000-gallon heating oil UST. However, no PNA constituent was detected at concentrations above TACO Tier 1 SROs.

No further investigation is necessary regarding this REC.

### **3.1.14 Former Flue Dust Loading Area (REC #15)**

Total and TCLP metals were detected in soil samples collected from borings B-16 and B-17 in the former flue dust loading area. Total lead was detected above the TACO Tier 1 soil ingestion SRO and TCLP lead was detected above the TACO Tier 1 groundwater ingestion exposure route SRO in soil sample B-17A(1.5 ft).

Further investigation may be necessary to further delineate soil above the soil ingestion and groundwater ingestion exposure route SROs associated with this REC.

### **3.1.15 Railroad Tracks (REC #16)**

Total and TCLP metals were detected in soil samples collected from borings B-18, B-19, and B-20 located near the railroad tracks. Additionally, PNAs were detected in soil samples B-19 and B-20. No PNA, total metal, or TCLP metal constituent was detected at concentrations above TACO Tier 1 SROs except for TCLP lead in soil sample B-19A (0 to 2 feet). TCLP lead was detected in soil sample B-19A (0 to 2 feet) at concentrations above the TACO Tier 1 groundwater ingestion exposure route SRO.

Further investigation may be necessary to further delineate soil above the groundwater ingestion exposure route SRO and associated with this REC.

### **3.1.16 Potential Solvent Usage (REC #17)**

No VOC compound was detected in soil sample B-21 collected from the potential solvent usage area located near the Besly Building on the south side of the subject property.

No further investigation is necessary regarding this REC.



### **3.1.17 Potential Hydraulic Oil Release-Besly Building (REC #18)**

No PNA or BTEX compound was detected above TACO Tier 1 SROs in soil samples B-22 and B-23 located in the basement of the Besly Building near the hydraulic elevators.

No further investigation is necessary regarding this REC.

### **3.1.18 Former Locomotive Warehouse (REC #19)**

No PNA or VOC compound was detected in soil sample B-24 except naphthalene. Naphthalene was detected in soil sample B-24A (4-6 feet) at a concentration below TACO Tier 1 SROs.

No further investigation is necessary regarding this REC.

### **3.1.19 Unknown Fill Material (REC #20)**

PNA, total and TCLP metals were detected in soil boring B-25 advanced in the fill material below the Forsyth Building. No PNA constituent was detected above TACO Tier 1 SROs, except benzo(a)anthracene in soil sample B-25A (2 to 4 feet) and B-25B (6 to 8 feet). Benzo(a)anthracene was detected at concentrations above Tier 1 soil ingestion exposure route SRO. No total metal or TCLP metal constituent was detected at concentrations above TACO Tier 1 SROs except for lead. Total lead was detected at concentrations above the soil ingestion SRO in B-25A (2 to 4 feet) and B-25B (6 to 8 feet), and the TCLP lead concentration was above the TACO Tier 1 groundwater ingestion exposure route SRO in soil sample B-25A (2 to 4 feet).

Further investigation may be necessary to further delineate soil above the soil ingestion and groundwater ingestion exposure route SROs and associated with this REC.

### **3.1.20 Potential Hydraulic Oil Release-Howard Medical Building (REC #21)**

No samples were collected at this location due to lack of access to the building during the investigation.

## **3.2 GROUNDWATER ANALYTICAL RESULTS**

Groundwater results were compared to TACO Tier 1 Class II Groundwater Remediation Objectives (GROs). The groundwater analytical results are listed in Table 4. The analytical data is provided in Attachment B.

No VOCs or PNAs were detected in any of the groundwater samples collected from the monitoring wells installed at the subject property. No total metal constituents were detected in any of the groundwater samples except barium. Barium was detected in all of the groundwater samples at concentrations below TACO Tier 1 Class II GROs.



#### 4.0 CONCLUSIONS

Based on observations, groundwater water elevation data, and soil and groundwater analytical results collected during the Phase II Investigation, the following conclusions were developed:

1. In general, the geology beneath the subject property consists of sandy fill and/or topsoil underlain by silty clay. The topsoil and/or fill ranges in thickness from 1.5 to 9.0 feet. Groundwater was encountered at the interface between the fill material and the native silty clay. Based on water level elevations in the groundwater monitoring wells, the general groundwater flow direction is to the east/southeast.
2. Based on the results from the groundwater samples collected from the groundwater monitoring wells, no VOCs or PNAs were detected in any of the groundwater samples. In addition, no total metal constituents were detected in any of the samples except barium; however, all of the barium concentrations were below TACO Tier 1 Class II GROs.
3. Based on the soil sample and groundwater grab sample data, the following RECs were identified as potential sources of impact that may require additional investigation:
  - A. REC #2 – 9,000-gallon abandoned heating oil UST. PNAs were identified at concentrations above their respective Class II GROs.
  - B. REC #3 & #4 – Historic Foundry/Unknown Fill Material. PNAs and total metals were detected above the TACO Tier 1 soil ingestion exposure route and groundwater ingestion exposure route SROs. In addition, the fill material exhibited TCLP lead at levels above the Tier 1 groundwater ingestion SROs and the toxicity characteristic hazardous waste threshold (5.0 mg/L).
  - C. REC #5 – Transformer Release. PNAs, PCBs, and total metals were detected at concentrations above the TACO Tier 1 soil ingestion exposure route SROs. The detected PCBs were below the hazardous waste threshold. However, the soil and fill material exhibited TCLP lead (21.8 mg/l and 96.1 mg/l) at levels above the toxicity characteristic hazardous waste threshold (5.0 mg/L).
  - D. REC #6 – Potential Hydraulic Oil Release-Scrap metal briquetter. Total metals were detected at concentrations above the TACO Tier 1 soil ingestion exposure route SROs. In addition, the TCLP lead was present at a concentration above the Tier 1 groundwater ingestion SRO.
  - E. REC #7 – Potential Oil Release from Compressors. Naphthalene was detected above Tier 1 soil inhalation SROs. Total lead was detected at concentrations



above TACO Tier 1 ingestion exposure route SROs. TCLP lead was detected at concentrations above TACO Tier 1 groundwater ingestion SROs. In addition, PNAs were detected in a groundwater grab sample at concentrations above their respective Class II GROs.

- F. REC #8 – Potential Hydraulic Oil Release-Pouring Conveyor. PNAs and total metals were detected at concentrations above the TACO Tier 1 soil ingestion exposure route SROs and groundwater ingestion exposure route SROs. TCLP lead was detected at concentrations above TACO Tier 1 groundwater ingestion SROs and was detected at a concentration of 21.8 mg/L, which is above the toxicity characteristic hazardous waste threshold (5.0 mg/L).
- G. REC #9 – Abandoned 2,000-Gallon Gasoline UST. Benzene was detected at concentrations above the Tier 1 soil inhalation and groundwater ingestion exposure route SROs.
- H. REC #11 – Former Bulk Oil Storage. PNAs were detected at concentrations above the TACO Tier 1 ingestion exposure route SROs.
- I. REC #12 – Former Slag Pile (REC #12). Total lead was detected at concentrations above the Tier 1 soil ingestion SRO and the TCLP lead concentration was above the TACO Tier 1 groundwater ingestion exposure route SRO.
- J. REC #15 – Former Flue Dust Loading Area. Total lead was detected at concentrations above the TACO Tier 1 soil ingestion SRO and the TCLP lead concentration was above the TACO Tier 1 groundwater ingestion exposure route SRO.
- K. REC #16 – Railroad Tracks. TCLP lead was detected at concentrations above the TACO Tier 1 groundwater ingestion exposure route SROs.
- L. REC #20 – Unknown Fill Material in the Forsyth Building – 1672 North Elston Avenue. Benzo(a)anthracene was detected at concentrations above the Tier 1 soil ingestion exposure route SRO. Total lead was detected at concentrations above the TACO Tier 1 soil ingestion SRO and the TCLP lead concentration was above the TACO Tier 1 groundwater ingestion exposure route SRO.
- 4. REC #21 – Potential Hydraulic Oil Release-Howard Medical Building. No samples were collected at this location due to lack of access to the building during the investigation.
- 5. No further investigation is necessary as to REC # 1, 10, 13, 14, 17, 18, and 19.



## FIGURES

(SOURCE OF MAP IS USGS 7.5 MINUTE QUADRANGLE MAP, CHICAGO LOOP, ILLINOIS)

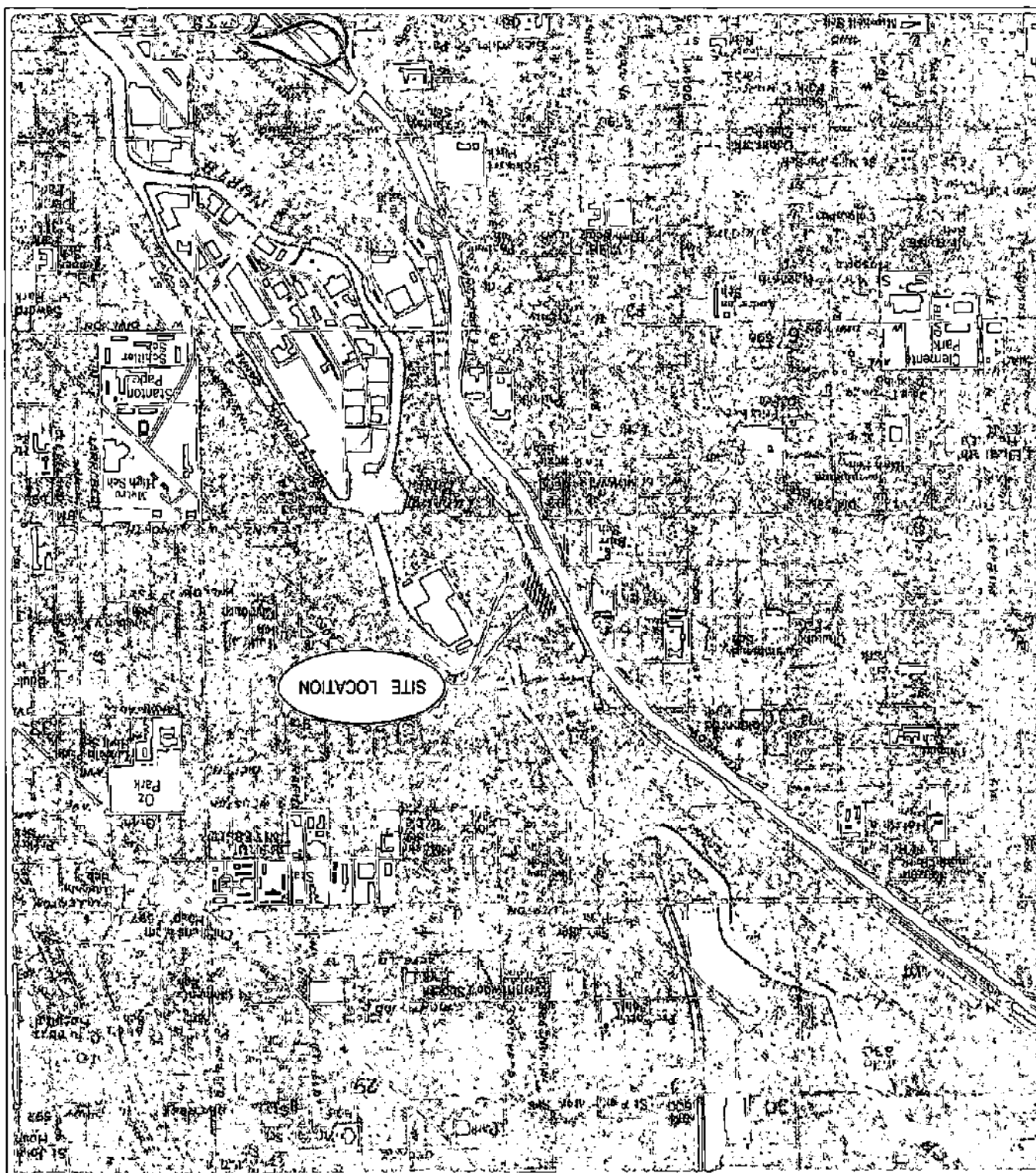
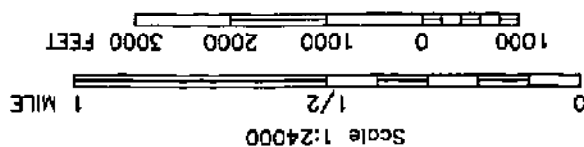
CHICAGO, ILLINOIS  
1720 N. ELSTON AVENUE  
SIFI METALS

QUADRANGLE LOCATION



SITE LOCATION MAP

FIGURE 1











## TABLES

**TABLE 1**  
**Soil/Groundwater Grab Sampling**

SIPi Metals / Chicago, Illinois

AREA OF INVESTIGATION	DESCRIPTION	BORING / WELL ID	NO. OF GROUND-WATER GRAB SAMPLES	NO. OF SOIL SAMPLES	ANALYSIS									
					VOCs	BETX	PNAs	Total Metals	TCLP Metals	pH	Total Cyanide	PCBs	Foc	
REC #1	Former Plating Solution Process Area	B-1		1	1				1	1	1			
REC #2	9,000-Gal. Abandoned Heating Oil UST	B-2		2		2	2							
REC #3 & #4	Historic Foundry/Unknown Fill Material	B-3		1	1		1	1	1	1	1			
REC #5	Potential Transformer Release	B-4		2					1	1	1		1	1
REC #6 (RECs 3 & 4)	Potential Hydraulic Oil Release	B-5		1			1	1	1	1	1			
REC #7 (RECs 3 & 4)	Potential Oil Release from Compressors	B-6		1			1	1	1	1	1			
REC #8 (RECs 3 & 4)	Potential Hydraulic Oil Release	B-7		1										
REC #9	Abandoned 2,000 Gallon Gasoline UST	B-8		2		2	2		2	2	2	2		1
REC #10	2,000 Gallon Gasoline UST - Removed	B-9		3			3							
REC #11	Former Bulk Oil Storage	B-10		1			1	1						
		B-11/MW-3		1			1	1						
		B-12		2			2	2						
REC #12	Former Slag Pile	B-13		2					2	2	2			
REC #13	Brick Lined Storm Sewer	B-14/MW-2		2					2	2	2			1
REC #14	Former 10,000-Gallon Heating Oil USTs	B-15		2			2	2						
REC #15	Former Flue Dust Loading Area	B-16		2					2	2	2	2		
		B-17/MW-4		2					2	2	2	2		
REC #16	Railroad Tracks	B-18		2	2			2	2	2	2			
		B-19		2	2			2	2	2	2			
		B-20		2	2			2	2	2	2			

**TABLE 1**  
**Soil/Groundwater Grab Sampling**

SIP Metals / Chicago, Illinois

AREA OF INVESTIGATION	DESCRIPTION	BORING / WELL ID	NO. OF GROUND-WATER GRAB SAMPLES	NO. OF SOIL SAMPLES	ANALYSIS									
					VOCs	BETX	PNAs	Total Metals	TCLP Metals	pH	Total Cyanide	PCBs	Foc	
REC #17	Potential Solvent Usage	B-21/MW-6		1	1									
REC #18 (REC 17)	Potential Hydraulic Oil Release	B-22		1	1		1							
		B-23	1	2	2		2							
REC #19	Former Locomotive Warehouse	B-24		2	2		2							
REC #20	Unknown Fill Material	B-25		2	2		2	2	2	2				
REC #21	Potential Hydraulic Oil Release	B-26		0	0		0							
Upgradient Well	Assess Upgradient Property Boundary	B-27/MW-1		1				1	1	1	1			
Downgradient Well	Assess Downgradient Property Boundary	B-28/MW-5		1	1		1	1	1	1	1			
Totals			5	44	19	19	30	29	26	26	3	1	1	3

\* Not sampled due to lack of access to the Howard Medical Building during investigation

**TABLE 2**  
**Soil Analytical Data**

SiPi Metals / Chicago, Illinois

COMPOUNDS	Tier 1 Ingestion Exposure Route *	Tier 1 Inhalation Exposure Route *	Tier 1 Groundwater Ingestion Class II *	Toxicity Characteristic Hazardous Waste **	SAMPLE LOCATIONS AND DEPTH						
					B-1A 2-4 ft	B-2		B-3A 1-2 ft	B-4		B-5A 4-6 ft
						A 2-4 ft	B 6-8 ft		A 1.5 ft	B 3 ft	
<b>BTEX (ug/kg)</b>											
Benzene	100,000	1,600	170	-	<5.0	<2.0	<2.0	<5.0	NA	NA	<2.0
Toluene	410,000,000	42,000	29,000	-	<5.0	<5.0	<5.0	<5.0	NA	NA	<5.0
Ethyl benzene	2,000,000	58,000	19,000	-	<5.0	<5.0	<5.0	<5.0	NA	NA	<5.0
Xylenes (total)	410,000,000	320,000	150,000	-	<5.0	<5.0	<5.0	<5.0	NA	NA	<5.0
<b>PNAs (ug/kg)</b>											
Naphthalene	4,100,000	1,800	18,000	-	NA	<25	<25	<25	574	1,680	<25
Acenaphthylene	-	-	-	-	NA	<50	<50	<50	287	999	<50
Acenaphthene	120,000,000	-	2,900,000	-	NA	<50	<50	<50	675	1,600	<50
Fluorene	82,000,000	-	2,800,000	-	NA	<50	<50	<50	884	1,980	<50
Phenanthrene	-	-	-	-	NA	<50	<50	410	8,060	14,500	233
Anthracene	610,000,000	-	59,000,000	-	NA	<50	<50	95	1,840	3,970	<50
Fluoranthene	82,000,000	-	21,000,000	-	NA	<50	<50	646	9,220	20,200	244
Pyrene	61,000,000	-	21,000,000	-	NA	<50	<50	628	8,240	19,200	206
Benzo(a)anthracene	8,000	-	8,000	-	NA	13	10	319	3,970	9,330	117
Chrysene	780,000	-	800,000	-	NA	<50	<50	300	4,340	10,300	151
Benzo(b)fluoranthene	8,000	-	25,000	-	NA	14	<11	252	3,380	9,930	100
Benzo(k)fluoranthene	78,000	-	250,000	-	NA	<11	<11	255	3,160	6,650	95
Benzo(a)pyrene	800	-	82,000	-	NA	<15	<15	317	4,040	10,400	112
Indeno(1,2,3-cd)pyrene	8,000	-	69,000	-	NA	<29	<29	173	2,780	7,310	75
Dibenz(a,h)anthracene	800	-	7,600	-	NA	<20	<20	55	675	1,540	21
Benzo(g,h,i)perylene	-	-	-	-	NA	<50	<50	144	2,540	6,470	75
<b>Total Metals (mg/kg)</b>											
Arsenic	61	1,200	-	-	2.8	NA	NA	27.5	21.3	92.1	79.6
Barium	14,000	870,000	-	-	62.4	NA	NA	338	556	60.9	432
Cadmium	200	2,800	-	-	0.8	NA	NA	<0.1	22.5	24.3	3.1
Chromium	4,100	420	-	-	20.6	NA	NA	27.7	94.6	126	22.6
Lead	400	-	-	-	83.8	NA	NA	153	10,200	8,940	1,010
Mercury	61	52,000	-	-	0.14	NA	NA	0.06	2.07	17.3	0.36
Selenium	1,000	-	-	-	<0.2	NA	NA	2.8	<0.2	12.9	6.3
Silver	1,000	-	-	-	10.8	NA	NA	0.5	8.8	8.6	0.4
<b>TCLP Metals (mg/L)</b>											
Arsenic	-	-	0.024	5.0	<0.002	NA	NA	<0.002	<0.002	0.024	<0.002
Barium	-	-	2.0	100	<1.0	NA	NA	<1.0	<1.0	1.1	<1.0
Cadmium	-	-	0.05	1.0	<0.001	NA	NA	0.006	0.314	0.506	0.042
Chromium	-	-	1.0	5.0	0.194	NA	NA	0.001	0.002	0.003	0.002
Lead	-	-	0.1	5.0	<0.002	NA	NA	0.188	21.8	96.1	0.787
Mercury	-	-	0.01	0.2	<0.0005	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005
Selenium	-	-	0.05	1.0	0.004	NA	NA	<0.002	<0.002	<0.002	<0.002
Silver	-	-	0.05	5.0	<0.001	NA	NA	<0.001	<0.001	<0.001	<0.001
<b>PCBs (ug/kg)</b>											
Aroclor 1254	1,000	-	-	-	NA	NA	NA	NA	857	3,440	NA
<b>FOC</b>											
pH	-	-	-	-	11.6	NA	NA	9.19	10.22	8.44	8.99

**NOTES:**

Only compounds detected are included in this table

\* = Tier 1 SRO for Commercial/Industrial Properties

\*\* = Cleanup objective from 40 CFR Part 261.24

NA = Not analyzed

	= above Tier 1 ingestion Exposure Route SROs
<b>BOLD</b>	= above Tier 1 inhalation Exposure Route SROs
	= above Groundwater Ingestion Exposure Route
	= above Toxicity Characteristic Hazardous Waste

**TABLE 2**  
**Soil Analytical Data**

SiPi Metals / Chicago, Illinois

COMPOUNDS	Tier 1 Ingestion Exposure Route *	Tier 1 Inhalation Exposure Route *	Tier 1 Groundwater Ingestion Class II *	Toxicity Characteristic Hazardous Waste **	SAMPLE LOCATIONS AND DEPTH						
					B-6A	B-7A	B-8		B-9	B-9	
					2 ft	1-2 ft	A 2-4 ft	B 6-8 ft	A 4-6 ft	B 8-10 ft	C 10-12 ft
<b>BTEX (ug/kg)</b>											
Benzene	100,000	1,500	170	-	<2.0	<2.0	1,850	<2.0	<2.0	<2.0	<2.0
Toluene	410,000,000	42,000	29,000	-	<5.0	<5.0	26	<5.0	<5.0	<5.0	<5.0
Ethyl benzene	2,000,000	58,000	19,000	-	5	<5.0	55.2	<5.0	<5.0	<5.0	<5.0
Xylenes (total)	410,000,000	320,000	150,000	-	5.4	<5.0	61.4	<5.0	<5.0	<5.0	<5.0
<b>PNAs (ug/kg)</b>											
Naphthalene	4,100,000	1,800	18,000	-	2,590	6,530	NA	NA	NA	NA	NA
Acenaphthylene	-	-	-	-	<50	1,370	NA	NA	NA	NA	NA
Acenaphthene	120,000,000	-	2,900,000	-	61	4,560	NA	NA	NA	NA	NA
Fluorene	82,000,000	-	2,800,000	-	183	5,180	NA	NA	NA	NA	NA
Phenanthrene	-	-	-	-	1,200	70,600	NA	NA	NA	NA	NA
Anthracene	610,000,000	-	59,000,000	-	170	16,100	NA	NA	NA	NA	NA
Fluoranthene	82,000,000	-	21,000,000	-	866	203,000	NA	NA	NA	NA	NA
Pyrene	61,000,000	-	21,000,000	-	879	182,000	NA	NA	NA	NA	NA
Benzo(a)anthracene	8,000	-	8,000	-	340	106,000	NA	NA	NA	NA	NA
Chrysene	780,000	-	800,000	-	492	98,800	NA	NA	NA	NA	NA
Benzo(b)fluoranthene	8,000	-	25,000	-	305	75,200	NA	NA	NA	NA	NA
Benzo(k)fluoranthene	78,000	-	250,000	-	213	97,800	NA	NA	NA	NA	NA
Benzo(a)pyrene	800	-	82,000	-	340	110,000	NA	NA	NA	NA	NA
Indeno(1,2,3-cd)pyrene	8,000	-	69,000	-	196	69,200	NA	NA	NA	NA	NA
Dibenz(a,h)anthracene	800	-	7,600	-	70	16,200	NA	NA	NA	NA	NA
Benzo(g,h,i)perylene	-	-	-	-	287	37,500	NA	NA	NA	NA	NA
<b>Total Metals (mg/kg)</b>											
Arsenic	61	1,200	-	-	42.6	16.5	6.4	7.8	NA	NA	NA
Barium	14,000	870,000	-	-	350	1,490	40.5	34.1	NA	NA	NA
Cadmium	200	2,800	-	-	107	16.8	<0.1	<0.1	NA	NA	NA
Chromium	4,100	420	-	-	91	82.1	22	16.3	NA	NA	NA
Lead	400	-	-	-	34,000	8,790	20.6	14.2	NA	NA	NA
Mercury	61	52,000	-	-	1.1	0.21	<0.05	<0.05	NA	NA	NA
Selenium	1,000	-	-	-	0.9	1.5	<0.2	<0.2	NA	NA	NA
Silver	1,000	-	-	-	51.4	2	<0.1	<0.1	NA	NA	NA
<b>TCLP Metals (mg/L)</b>											
Arsenic	-	-	0.024	5.0	0.003	<0.002	0.005	<0.002	NA	NA	NA
Barium	-	-	2.0	100	<1.0	2.4	<1.0	<1.0	NA	NA	NA
Cadmium	-	-	0.05	1.0	0.529	0.348	<0.001	0.002	NA	NA	NA
Chromium	-	-	1.0	5.0	<0.001	0.003	0.002	0.002	NA	NA	NA
Lead	-	-	0.1	5.0	2.53	21.8	0.048	0.009	NA	NA	NA
Mercury	-	-	0.01	0.2	<0.0005	<0.0005	<0.0005	<0.0005	NA	NA	NA
Selenium	-	-	0.05	1.0	<0.002	<0.002	<0.002	<0.002	NA	NA	NA
Silver	-	-	0.05	5.0	<0.001	<0.001	0.001	0.001	NA	NA	NA
<b>PCBs (ug/kg)</b>											
Aroclor 1254	1,000	-	-	-	NA	NA	NA	NA	NA	NA	NA
<b>FOC</b>											
pH	-	-	-	-	8.12	8.04	8.51	8.8	NA	NA	NA

**NOTES:**

Only compounds detected are included in this table

\* = Tier 1 SRO for Commercial/Industrial Properties

\*\* = Cleanup objective from 40 CFR Part 261.24

NA = Not analyzed

<b>BOLD</b>	= above Tier 1 Ingestion Exposure Route SROs
	= above Tier 1 Inhalation Exposure Route SROs
	= above Groundwater Ingestion Exposure Route
	= above Toxicity Characteristic Hazardous Waste

**TABLE 2**  
**Soil Analytical Data**

SiPi Metals / Chicago, Illinois

COMPOUNDS	Tier 1 Ingestion Exposure Route *	Tier 1 Inhalation Exposure Route *	Tier 1 Groundwater Ingestion Class II *	Toxicity Characteristic Hazardous Waste **	SAMPLE LOCATIONS AND DEPTH					
					B-10A	B-11/ MW-3A	B-12		B-13	
					4-6 ft	4-6 ft	A 2-4 ft	B 6-8 ft	A 1.5 ft	B 3 ft
<b>BTEX (ug/kg)</b>										
Benzene	100,000	1,600	170	-	<2.0	8.2	<2.0	<2.0	NA	NA
Toluene	410,000,000	42,000	29,000	-	<5.0	<5.0	<5.0	<5.0	NA	NA
Ethyl benzene	2,000,000	58,000	19,000	-	<5.0	5.1	<5.0	<5.0	NA	NA
Xylenes (total)	410,000,000	320,000	150,000	-	<5.0	<5.0	<5.0	<5.0	NA	NA
<b>PNAs (ug/kg)</b>										
Naphthalene	4,100,000	1,800	18,000	-	572	7,430	182	<25	NA	NA
Acenaphthylene	-	-	-	-	<50	518	71	<50	NA	NA
Acenaphthene	120,000,000	-	2,900,000	-	818	1,420	87	<50	NA	NA
Fluorene	82,000,000	-	2,800,000	-	1,130	1,740	103	<50	NA	NA
Phenanthrene	-	-	-	-	371	8,480	1,250	<50	NA	NA
Anthracene	610,000,000	-	50,000,000	-	428	2,560	332	<50	NA	NA
Fluoranthene	82,000,000	-	21,000,000	-	894	19,600	2,780	<50	NA	NA
Pyrene	61,000,000	-	21,000,000	-	996	28,900	2,690	<50	NA	NA
Benzo(a)anthracene	8,000	-	8,000	-	416	12,900	1,740	<6.7	NA	NA
Chrysene	780,000	-	800,000	-	401	12,400	1,870	<50	NA	NA
Benzo(b)fluoranthene	8,000	-	25,000	-	303	14,600	1,590	<11	NA	NA
Benzo(k)fluoranthene	78,000	-	250,000	-	326	8,680	1,710	<11	NA	NA
Benzo(a)pyrene	800	-	82,000	-	345	22,400	1,980	<15	NA	NA
Indeno(1,2,3-cd)pyrene	8,000	-	69,000	-	218	9,550	1,150	<29	NA	NA
Dibenz(a,h)anthracene	800	-	7,800	-	68	2,580	316	<20	NA	NA
Benzo(g,h,i)perylene	-	-	-	-	182	9,010	961	<50	NA	NA
<b>Total Metals (mg/kg)</b>										
Arsenic	61	1,200	-	-	NA	NA	NA	NA	7.6	1.1
Barium	14,000	870,000	-	-	NA	NA	NA	NA	68.5	2.8
Cadmium	200	2,800	-	-	NA	NA	NA	NA	14.5	<0.1
Chromium	4,100	420	-	-	NA	NA	NA	NA	15.4	1.3
Lead	400	-	-	-	NA	NA	NA	NA	1,200	3.4
Mercury	61	52,000	-	-	NA	NA	NA	NA	0.36	<0.05
Selenium	1,000	-	-	-	NA	NA	NA	NA	<0.2	<0.2
Silver	1,000	-	-	-	NA	NA	NA	NA	20.3	<0.1
<b>TCLP Metals (mg/L)</b>										
Arsenic	-	-	0.024	5.0	NA	NA	NA	NA	0.005	<0.002
Barium	-	-	2.0	100	NA	NA	NA	NA	<1.0	<1.0
Cadmium	-	-	0.05	1.0	NA	NA	NA	NA	0.143	0.009
Chromium	-	-	1.0	5.0	NA	NA	NA	NA	0.002	0.002
Lead	-	-	0.1	5.0	NA	NA	NA	NA	0.68	0.03
Mercury	-	-	0.01	0.2	NA	NA	NA	NA	<0.0005	<0.0005
Selenium	-	-	0.05	1.0	NA	NA	NA	NA	<0.002	<0.002
Silver	-	-	0.05	5.0	NA	NA	NA	NA	<0.001	<0.001
<b>PCBs (ug/kg)</b>										
Aroclor 1254	1,000	-	-	-	NA	NA	NA	NA	NA	NA
<b>FOC</b>	-	-	-	-	NA	NA	NA	NA	NA	NA
<b>pH</b>	-	-	-	-	NA	NA	NA	NA	8.59	8.37

**NOTES:**

Only compounds detected are included in this table

\* = Tier 1 SRO for Commercial/Industrial Properties

\*\* = Cleanup objective from 40 CFR Part 261.24

NA = Not analyzed

<b>BOLD</b>	= above Tier 1 Ingestion Exposure Route SROs
<b>BOLD</b>	= above Tier 1 Inhalation Exposure Route SROs
<b>BOLD</b>	= above Groundwater Ingestion Exposure Route
<b>BOLD</b>	= above Toxicity Characteristic Hazardous Waste

**TABLE 2**  
**Soil Analytical Data**

SiPi Metals / Chicago, Illinois

COMPOUNDS	Tier 1 Ingestion Exposure Route *	Tier 1 Inhalation Exposure Route *	Tier 1 Groundwater Ingestion Class II *	Toxicity Characteristic Hazardous Waste **	SAMPLE LOCATIONS AND DEPTH					
					B-14/MW-2		B-15		B-16	
					A 5 ft	B 8 ft	A 2-4 ft	B 6-8 ft	A 2 ft	B 4 ft
<b>BTEX (ug/kg)</b>										
Benzene	100,000	1,800	170	-	NA	NA	<2.0	<2.0	NA	NA
Toluene	410,000,000	42,000	29,000	-	NA	NA	<5.0	<5.0	NA	NA
Ethyl benzene	2,000,000	58,000	19,000	-	NA	NA	<5.0	<5.0	NA	NA
Xylenes (total)	410,000,000	320,000	150,000	-	NA	NA	<5.0	<5.0	NA	NA
<b>PNAs (ug/kg)</b>										
Naphthalene	4,100,000	1,800	18,000	-	NA	NA	44	<25	NA	NA
Acenaphthylene	-	-	-	-	NA	NA	<50	<50	NA	NA
Acenaphthene	120,000,000	-	2,800,000	-	NA	NA	<50	<50	NA	NA
Fluorene	82,000,000	-	2,800,000	-	NA	NA	<50	<50	NA	NA
Phenanthrene	-	-	-	-	NA	NA	204	<50	NA	NA
Anthracene	610,000,000	-	59,000,000	-	NA	NA	<50	<50	NA	NA
Fluoranthene	82,000,000	-	21,000,000	-	NA	NA	134	<60	NA	NA
Pyrene	61,000,000	-	21,000,000	-	NA	NA	116	<50	NA	NA
Benzo(a)anthracene	8,000	-	8,000	-	NA	NA	77	<8.7	NA	NA
Chrysene	780,000	-	800,000	-	NA	NA	97	<50	NA	NA
Benzo(b)fluoranthene	8,000	-	25,000	-	NA	NA	67	<11	NA	NA
Benzo(k)fluoranthene	78,000	-	250,000	-	NA	NA	46	<11	NA	NA
Benzo(a)pyrene	800	-	82,000	-	NA	NA	82	<15	NA	NA
Indeno(1,2,3-cd)pyrene	8,000	-	69,000	-	NA	NA	35	<29	NA	NA
Dibenz(a,h)anthracene	800	-	7,600	-	NA	NA	<20	<20	NA	NA
Benzo(g,h,i)perylene	-	-	-	-	NA	NA	<50	<50	NA	NA
<b>Total Metals (mg/kg)</b>										
Arsenic	61	1,200	-	-	2.9	9.1	NA	NA	16	1
Barium	14,000	870,000	-	-	46.4	29	NA	NA	94.9	2.4
Cadmium	200	2,800	-	-	<0.1	<0.1	NA	NA	6.9	<0.1
Chromium	4,100	420	-	-	24.9	19.2	NA	NA	10.8	1.4
Lead	400	-	-	-	18	18.1	NA	NA	299	1.3
Mercury	61	52,000	-	-	<0.05	<0.05	NA	NA	0.09	<0.05
Selenium	1,000	-	-	-	<0.2	<0.2	NA	NA	<0.2	<0.2
Silver	1,000	-	-	-	<0.1	<0.1	NA	NA	0.8	<0.1
<b>TCLP Metals (mg/L)</b>										
Arsenic	-	-	0.024	5.0	<0.002	<0.002	NA	NA	0.003	<0.002
Barium	-	-	2.0	100	<1.0	<1.0	NA	NA	<1.0	<1.0
Cadmium	-	-	0.05	1.0	<0.001	<0.001	NA	NA	0.028	0.002
Chromium	-	-	1.0	5.0	<0.001	<0.001	NA	NA	<0.001	0.002
Lead	-	-	0.1	5.0	0.014	<0.002	NA	NA	0.03	0.012
Mercury	-	-	0.01	0.2	<0.0005	<0.0005	NA	NA	<0.0005	<0.0005
Selenium	-	-	0.05	1.0	<0.002	<0.002	NA	NA	<0.002	<0.002
Silver	-	-	0.05	5.0	<0.001	<0.001	NA	NA	<0.001	<0.001
<b>PCBs (ug/kg)</b>										
Aroclor 1254	1,000	-	-	-	NA	NA	NA	NA	NA	NA
<b>FOC</b>	-	-	-	-	NA	2.5	NA	NA	NA	NA
<b>pH</b>	-	-	-	-	8.73	8.75	NA	NA	8.16	8.35

**NOTES:**

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\* = Tier 1 SRO for Commercial/Industrial Properties

\*\* = Cleanup objective from 40 CFR Part 261.24

NA = Not analyzed

	= above Tier 1 Ingestion Exposure Route SROs
<b>BOLD</b>	= above Tier 1 Inhalation Exposure Route SROs
	= above Groundwater Ingestion Exposure Route
	= above Toxicity Characteristic Hazardous Waste



**TABLE 2**  
**Soil Analytical Data**

SiPi Metals / Chicago, Illinois

COMPOUNDS	Tier 1 Ingestion Exposure Route *	Tier 1 Inhalation Exposure Route *	Tier 1 Groundwater Ingestion Class II *	Toxicity Characteristic Hazardous Waste **	SAMPLE LOCATIONS AND DEPTH					
					B-17/MW-4		B-18		B-19	
					A 1.5 ft	B 4 ft	A 0-2 ft	B 6-8 ft	A 0-2 ft	B 4-6 ft
<b>BTEX (ug/kg)</b>										
Benzene	100,000	1,600	170	-	NA	NA	<5.0	<5.0	<5.0	<5.0
Toluene	410,000,000	42,000	29,000	-	NA	NA	<5.0	<5.0	<5.0	<5.0
Ethyl benzene	2,000,000	58,000	19,000	-	NA	NA	<5.0	<5.0	<5.0	<5.0
Xylenes (total)	410,000,000	320,000	150,000	-	NA	NA	<5.0	<5.0	<5.0	<5.0
<b>PNAs (ug/kg)</b>										
Naphthalene	4,100,000	1,800	18,000	-	NA	NA	<25	<25	67	<25
Acenaphthylene	-	-	-	-	NA	NA	<50	<50	<50	<50
Acenaphthene	120,000,000	-	2,900,000	-	NA	NA	<50	<50	<50	<50
Fluorene	82,000,000	-	2,800,000	-	NA	NA	<50	<50	<50	<50
Phenanthrene	-	-	-	-	NA	NA	<50	<50	210	<50
Anthracene	610,000,000	-	59,000,000	-	NA	NA	<50	<50	<50	<50
Fluoranthene	82,000,000	-	21,000,000	-	NA	NA	<50	<50	264	<50
Pyrene	61,000,000	-	21,000,000	-	NA	NA	<50	<50	247	<50
Benzo(a)anthracene	8,000	-	8,000	-	NA	NA	<8.7	<8.7	142	<8.7
Chrysene	780,000	-	800,000	-	NA	NA	<50	<50	160	<50
Benzo(b)fluoranthene	8,000	-	25,000	-	NA	NA	<11	<11	128	<11
Benzo(k)fluoranthene	78,000	-	250,000	-	NA	NA	<11	<11	157	<11
Benzo(a)pyrene	800	-	82,000	-	NA	NA	<15	<15	171	<15
Indeno(1,2,3-cd)pyrene	8,000	-	69,000	-	NA	NA	<29	<29	110	<29
Dibenzo(a,h)anthracene	800	-	7,600	-	NA	NA	<20	<20	28	<20
Benzo(g,h,i)perylene	-	-	-	-	NA	NA	<50	<50	94	<50
<b>Total Metals (mg/kg)</b>										
Arsenic	61	1,200	-	-	21.3	16.7	1.1	1	5.5	1.1
Barium	14,000	870,000	-	-	219	48.8	4.1	3.4	57.4	5.8
Cadmium	200	2,800	-	-	<0.1	<0.1	<0.1	<0.1	1.7	<0.1
Chromium	4,100	420	-	-	26.6	19.3	1.8	1.4	8.4	1.4
Lead	400	-	-	-	1,090	24	1.7	1.2	112	1.6
Mercury	61	52,000	-	-	0.24	<0.05	<0.05	<0.05	0.1	<0.05
Selenium	1,000	-	-	-	1.3	<0.2	<0.2	<0.2	<0.2	<0.2
Silver	1,000	-	-	-	1.7	<0.1	<0.1	<0.1	1.2	<0.1
<b>TCLP Metals (mg/L)</b>										
Arsenic	-	-	0.024	5.0	0.008	<0.002	<0.002	<0.002	<0.002	<0.002
Barium	-	-	2.0	100	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	-	-	0.05	1.0	0.043	<0.001	0.002	0.003	0.038	0.005
Chromium	-	-	1.0	5.0	0.004	0.002	0.002	0.002	0.002	<0.001
Lead	-	-	0.1	5.0	0.619	0.034	0.006	0.007	0.315	0.007
Mercury	-	-	0.01	0.2	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005	<0.0005
Selenium	-	-	0.05	1.0	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002
Silver	-	-	0.05	5.0	0.002	<0.001	<0.001	<0.001	<0.001	<0.001
<b>PCBs (ug/kg)</b>										
Aroclor 1254	1,000	-	-	-	NA	NA	NA	NA	NA	NA
<b>FOC</b>	-	-	-	-	NA	NA	NA	NA	NA	NA
<b>pH</b>	-	-	-	-	8.13	8.33	8.31	8.83	8.33	8.24

**NOTES:**

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NA = Not analyzed

	= above Tier 1 Ingestion Exposure Route SROs
<b>BOLD</b>	= above Tier 1 Inhalation Exposure Route SROs
	= above Groundwater Ingestion Exposure Route
	= above Toxicity Characteristic Hazardous Waste

TABLE 2  
Soil Analytical Data

SiPi Metals / Chicago, Illinois

COMPOUNDS	Tier 1 Ingestion Exposure Route *	Tier 1 Inhalation Exposure Route *	Tier 1 Groundwater Ingestion Class II *	Toxicity Characteristic Hazardous Waste **	SAMPLE LOCATIONS AND DEPTH					
					B-20		B-21/ MW-6A	B-22A	B-23	
					A 0-2 ft	B 2-4 ft	0-2 ft	4-6 ft	A 0-2 ft	B 8-10 ft
<b>BTEX (ug/kg)</b>										
Benzene	100,000	1,600	170	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene	410,000,000	42,000	29,000	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Ethyl benzene	2,000,000	58,000	19,000	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Xylenes (total)	410,000,000	320,000	150,000	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
<b>PNAs (ug/kg)</b>										
Naphthalene	4,100,000	1,800	18,000	-	170	150	NA	<25	<25	<25
Acenaphthylene	-	-	-	-	<50	<50	NA	<50	<50	<50
Acenaphthene	120,000,000	-	2,900,000	-	<50	<50	NA	<50	<50	<50
Fluorene	82,000,000	-	2,800,000	-	<50	<50	NA	<50	<50	<50
Phenanthrene	-	-	-	-	1,200	363	NA	51	<50	<50
Anthracene	610,000,000	-	59,000,000	-	108	<50	NA	<50	<50	<50
Fluoranthene	82,000,000	-	21,000,000	-	1,170	242	NA	<50	<50	<50
Pyrene	61,000,000	-	21,000,000	-	1,180	262	NA	<50	<50	<50
Benzo(a)anthracene	8,000	-	8,000	-	675	151	NA	<8.7	<8.7	<8.7
Chrysene	780,000	-	800,000	-	779	166	NA	<50	<50	<50
Benzo(b)fluoranthene	8,000	-	25,000	-	683	134	NA	<11	<11	<11
Benzo(k)fluoranthene	78,000	-	250,000	-	540	126	NA	<11	<11	<11
Benzo(a)pyrene	800	-	82,000	-	706	174	NA	<15	<15	<15
Indeno(1,2,3-cd)pyrene	8,000	-	69,000	-	440	95	NA	<29	<29	<29
Dibenz(a,h)anthracene	600	-	7,800	-	127	27	NA	<20	<20	<20
Benzo(g,h,i)perylene	-	-	-	-	370	83	NA	<50	<50	<50
<b>Total Metals (mg/kg)</b>										
Arsenic	61	1,200	-	-	14.7	14.5	NA	NA	NA	NA
Barium	14,000	870,000	-	-	106	58.9	NA	NA	NA	NA
Cadmium	200	2,800	-	-	2.5	4	NA	NA	NA	NA
Chromium	4,100	420	-	-	18.8	7.2	NA	NA	NA	NA
Lead	400	-	-	-	513	156	NA	NA	NA	NA
Mercury	61	52,000	-	-	0.13	0.06	NA	NA	NA	NA
Selenium	1,000	-	-	-	<0.2	<0.2	NA	NA	NA	NA
Silver	1,000	-	-	-	3	0.7	NA	NA	NA	NA
<b>TCLP Metals (mg/L)</b>										
Arsenic	-	-	0.024	5.0	0.003	<0.002	NA	NA	NA	NA
Barium	-	-	2.0	100	<1.0	<1.0	NA	NA	NA	NA
Cadmium	-	-	0.05	1.0	<0.001	0.014	NA	NA	NA	NA
Chromium	-	-	1.0	5.0	0.007	<0.001	NA	NA	NA	NA
Lead	-	-	0.1	5.0	<0.002	0.009	NA	NA	NA	NA
Mercury	-	-	0.01	0.2	<0.0005	<0.0005	NA	NA	NA	NA
Selenium	-	-	0.05	1.0	<0.002	<0.002	NA	NA	NA	NA
Silver	-	-	0.05	5.0	<0.001	<0.001	NA	NA	NA	NA
<b>PCBs (ug/kg)</b>										
Aroclor 1254	1,000	-	-	-	NA	NA	NA	NA	NA	NA
<b>FOC</b>	-	-	-	-	NA	NA	NA	NA	NA	NA
<b>pH</b>	-	-	-	-	9.48	8.76	NA	NA	NA	NA

NOTES:

Only compounds detected are included in this table

\* = Tier 1 SRO for Commercial/Industrial Properties

\*\* = Cleanup objective from 40 CFR Part 261.24

NA = Not analyzed

	= above Tier 1 Ingestion Exposure Route SROs
<b>BOLD</b>	= above Tier 1 Inhalation Exposure Route SROs
	= above Groundwater Ingestion Exposure Route
	= above Toxicity Characteristic Hazardous Waste

**TABLE 2**  
**Soil Analytical Data**

SiPi Metals / Chicago, Illinois

COMPOUNDS	Tier 1 Ingestion Exposure Route *	Tier 1 Inhalation Exposure Route *	Tier 1 Groundwater Ingestion Class II *	Toxicity Characteristic Hazardous Waste **	SAMPLE LOCATIONS AND DEPTH					
					B-24		B-25		B-27/	B-28/
					A 4-6 ft	B 6-8 ft	A 2-4 ft	B 6-8 ft	MW-1A 1.5 ft	MW-5 2-4 ft
<b>BTEX (ug/kg)</b>										
Benzene	100,000	1,800	170	-	<5.0	<5.0	<5.0	<5.0	NA	<5.0
Toluene	410,000,000	42,000	29,000	-	<5.0	<5.0	<5.0	<5.0	NA	<5.0
Ethyl benzene	2,000,000	58,000	19,000	-	<5.0	<5.0	<5.0	<5.0	NA	<5.0
Xylenes (total)	410,000,000	320,000	150,000	-	<5.0	<5.0	<5.0	<5.0	NA	<5.0
<b>PNAs (ug/kg)</b>										
Naphthalene	4,100,000	1,800	18,000	-	43	<25	3,530	766	NA	721
Acenaphthylene	-	-	-	-	<50	<50	3,820	533	NA	91
Acenaphthene	120,000,000	-	2,900,000	-	<50	<50	2,340	888	NA	99
Fluorene	82,000,000	-	2,800,000	-	<50	<50	6,250	1,010	NA	99
Phenanthrene	-	-	-	-	<50	<50	78,800	10,400	NA	1,510
Anthracene	510,000,000	-	59,000,000	-	<50	<50	8,890	2,580	NA	494
Fluoranthene	82,000,000	-	21,000,000	-	<50	<50	71,600	16,600	NA	4,290
Pyrene	51,000,000	-	21,000,000	-	<50	<50	73,700	15,400	NA	4,740
Benzo(a)anthracene	8,000	-	8,000	-	<8.7	<8.7	17,000	8,620	NA	3,400
Chrysene	780,000	-	800,000	-	<50	<50	15,000	8,050	NA	3,060
Benzo(b)fluoranthene	8,000	-	25,000	-	<11	<11	15,600	6,940	NA	3,580
Benzo(k)fluoranthene	78,000	-	250,000	-	<11	<11	9,540	6,870	NA	2,660
Benzo(a)pyrene	800	-	82,000	-	<15	<15	17,100	8,860	NA	4,070
Indeno(1,2,3-cd)pyrene	8,000	-	69,000	-	<29	<29	8,230	3,980	NA	2,050
Dibenz(a,h)anthracene	800	-	7,600	-	<20	<20	2,330	1,110	NA	527
Benzo(g,h,i)perylene	-	-	-	-	<50	<50	6,210	3,220	NA	1,530
<b>Total Metals (mg/kg)</b>										
Arsenic	61	1,200	-	-	NA	NA	17.2	15.9	8.1	24
Barium	14,000	870,000	-	-	NA	NA	450	734	149	91.8
Cadmium	200	2,800	-	-	NA	NA	1.7	0.1	18	<0.1
Chromium	4,100	420	-	-	NA	NA	29.1	36.8	85.2	18.3
Lead	400	-	-	-	NA	NA	852	818	2,060	125
Mercury	61	52,000	-	-	NA	NA	1.2	0.89	0.22	0.79
Selenium	1,000	-	-	-	NA	NA	<0.2	0.4	<0.2	<0.2
Silver	1,000	-	-	-	NA	NA	0.4	0.4	18.1	0.7
<b>TCLP Metals (mg/L)</b>										
Arsenic	-	-	0.024	5.0	NA	NA	0.007	<0.002	0.003	<0.002
Barium	-	-	2.0	100	NA	NA	<1.0	<1.0	<1.0	<1.0
Cadmium	-	-	0.05	1.0	NA	NA	0.011	0.008	0.214	<0.001
Chromium	-	-	1.0	5.0	NA	NA	<0.001	<0.001	0.001	<0.001
Lead	-	-	0.1	5.0	NA	NA	0.106	0.1	2.32	<0.002
Mercury	-	-	0.01	0.2	NA	NA	<0.0005	<0.0005	<0.0005	<0.0005
Selenium	-	-	0.05	1.0	NA	NA	<0.002	<0.002	<0.002	<0.002
Silver	-	-	0.05	5.0	NA	NA	<0.001	<0.001	<0.001	<0.001
<b>PCBs (ug/kg)</b>										
Aroclor 1254	1,000	-	-	-	NA	NA	NA	NA	NA	NA
<b>FOC</b>	-	-	-	-	NA	NA	NA	NA	NA	NA
<b>pH</b>	-	-	-	-	NA	NA	8.73	8.35	9.69	8.95

**NOTES:**

Only compounds detected are included in this table

\* = Tier 1 SRO for Commercial/Industrial Properties

\*\* = Cleanup objective from 40 CFR Part 261.24

NA = Not analyzed

	= above Tier 1 Ingestion Exposure Route SROs
<b>BOLD</b>	= above Tier 1 Inhalation Exposure Route SROs
	= above Groundwater Ingestion Exposure Route
	= above Toxicity Characteristic Hazardous Waste

**TABLE 3**  
**Groundwater Grab Sample Analytical Data**

SiPI Metals / Chicago, Illinois

COMPOUNDS	OBJECTIVES *	SAMPLE LOCATIONS				
		GW-2	GW-3	GW-6	GW-8	GW-22
<b>VOCs (ug/L)</b>						
Benzene	25	<5.0	<5.0	<5.0	6.7	<5.0
<b>PNAs (ug/L)</b>						
Phenanthrene		<5	<5	9	NA	<5
Fluoranthene	1400	3	<2	21	NA	<2
Pyrene	1050	3	<2	17	NA	<2
Benzo(a)anthracene	0.65	1.5	0.5	10.6	NA	<0.13
Chrysene	7.5	1.8	<1.5	13	NA	<1.5
Benzo(b)fluoranthene	0.9	1.4	0.46	12	NA	<0.18
Benzo(k)fluoranthene	0.85	1.3	0.41	8.6	NA	<0.17
Benzo(a)pyrene	2	1.8	0.6	10	NA	<0.2
Indeno(1,2,3-cd)pyrene	2.15	1.2	0.4	8.1	NA	<0.3
Dibenz(a,h)anthracene	1.5	0.3	<0.3	3.2	NA	<0.3
Benzo(g,h,i)perylene		1.2	<0.4	6.8	NA	<0.4
<b>Total Metals (mg/L)</b>						
Arsenic	0.2	NA	0.016	0.008	0.004	NA
Barium	2	NA	0.105	0.199	0.047	NA
Chromium	1	NA	0.002	<0.001	<0.001	NA
Lead	0.1	NA	0.178	0.012	<0.002	NA

**NOTES:**

Only compounds detected are included in this table

\* TACO Tier 1 GROs for the Groundwater Component of the Groundwater Ingestion Route, Class II

  = above TACO Tier 1 GRO, Class II

**TABLE 4**  
**Groundwater Analytical Data**  
**August 19, 2004**

SiPi Metals / Chicago, Illinois

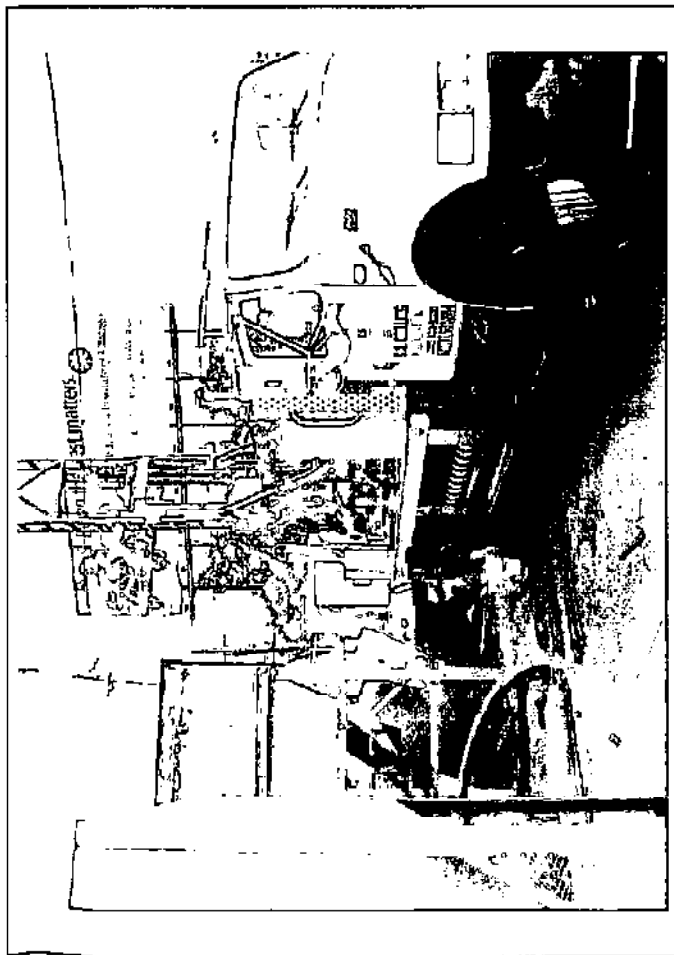
COMPOUNDS	OBJECTIVES *	SAMPLE LOCATIONS					
		MW1-081904	MW2-081904	MW3-081904	MW4-081904	MW5-081904	MW6-081904
<b>VOCs (ug/L)</b>							
Benzene	25	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
<b>PNAs (ug/L)</b>							
Phenanthrene	-	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Fluoranthene	1400	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Pyrene	1050	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Benzo(a)anthracene	0.65	<0.13	<0.13	<0.13	<0.13	<0.13	<0.13
Chrysene	7.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5
Benzo(b)fluoranthene	0.9	<0.18	<0.18	<0.18	<0.18	<0.18	<0.18
Benzo(k)fluoranthene	0.85	<0.17	<0.17	<0.17	<0.17	<0.17	<0.17
Benzo(a)pyrene	2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2
Indeno(1,2,3-cd)pyrene	2.15	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Dibenz(a,h)anthracene	1.5	<0.3	<0.3	<0.3	<0.3	<0.3	<0.3
Benzo(g,h,i)perylene	-	<0.4	<0.4	<0.4	<0.4	<0.4	<0.4
<b>Total Metals (mg/L)</b>							
Arsenic	0.2	<0.002	<0.002	0.006	<0.002	<0.002	<0.002
Barium	2	0.057	0.142	0.295	0.069	0.095	0.076
Chromium	1	<0.001	<0.001	<0.001	<0.001	<0.001	<0.001
Lead	0.1	<0.002	<0.002	<0.002	<0.002	<0.002	<0.002

**NOTES:**  
Only the compounds detected in the previous groundwater grab samples are included in this table  
\* TACO Tier 1 GROs for the Groundwater Component of the Groundwater Ingestion Route, Class II



## PHOTOGRAPHS

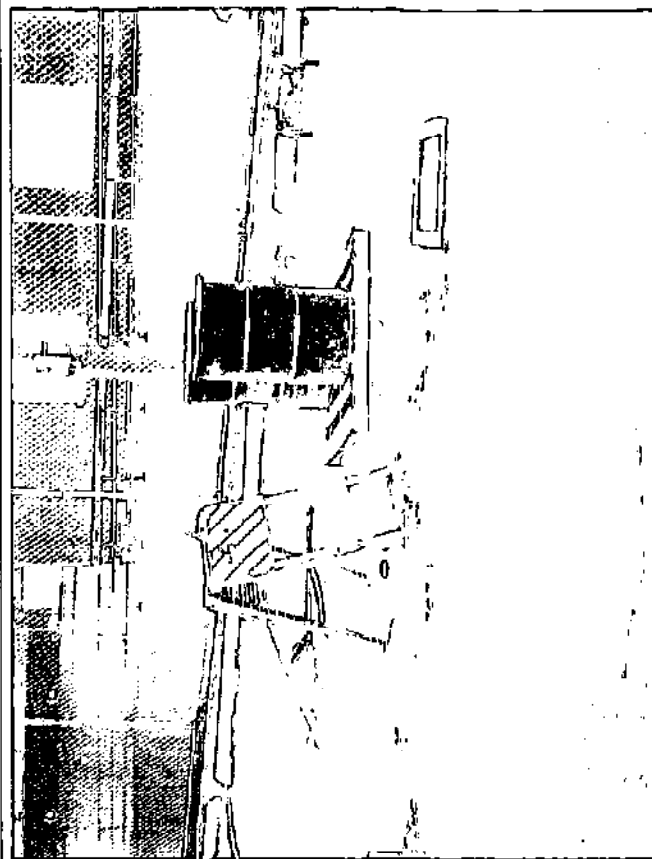
PHOTO LOG  
SiPi Metals  
1720 N. Elston  
Chicago, IL  
Project 15-04183.000-003



**PHOTOGRAPH #1**

Location/Direction: Facing north  
Drilling at soil boring B-12

*by DWL: 08/09/04*

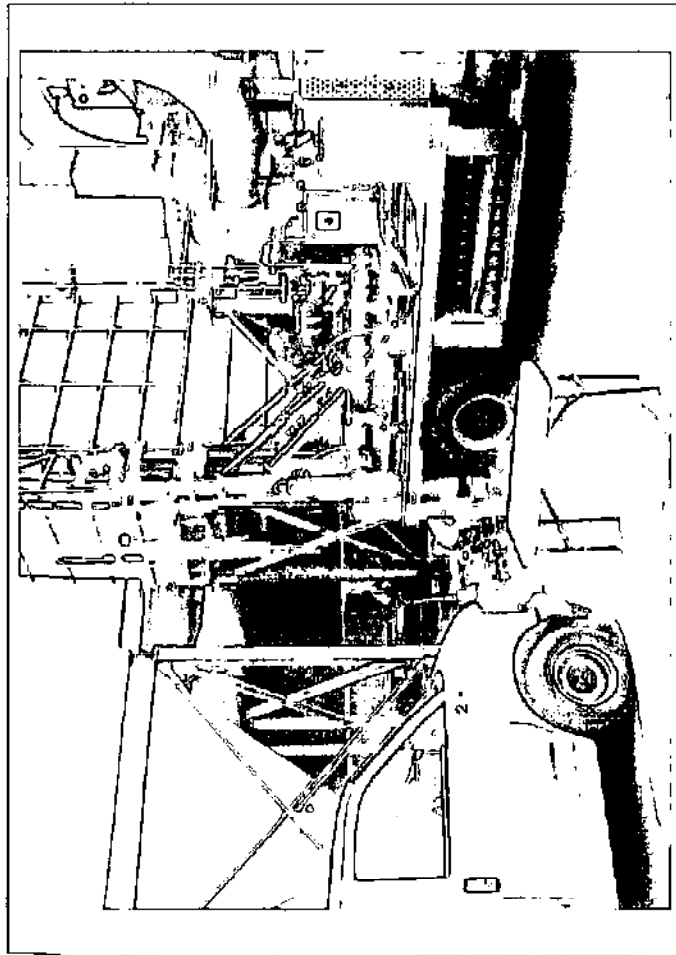


**PHOTOGRAPH #2**

Location/Direction: Facing northeast  
Soil drums and completed MW-3.

*by DWL: 08/09/04*

**PHOTO LOG**  
SiPi Metals  
1720 N. Elston  
Chicago, IL  
Project 15-04183.00-003

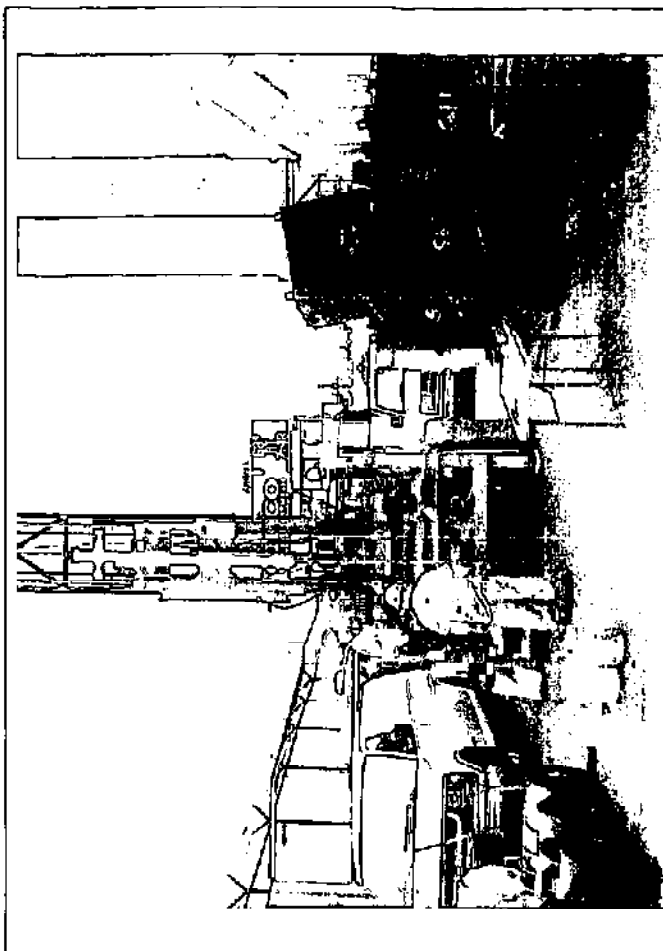


**PHOTOGRAPH # 3**

Location/Direction: Facing southeast

Location of MW-2 on the west side of the building.

by DWL: 08/09/04



**PHOTOGRAPH # 4**

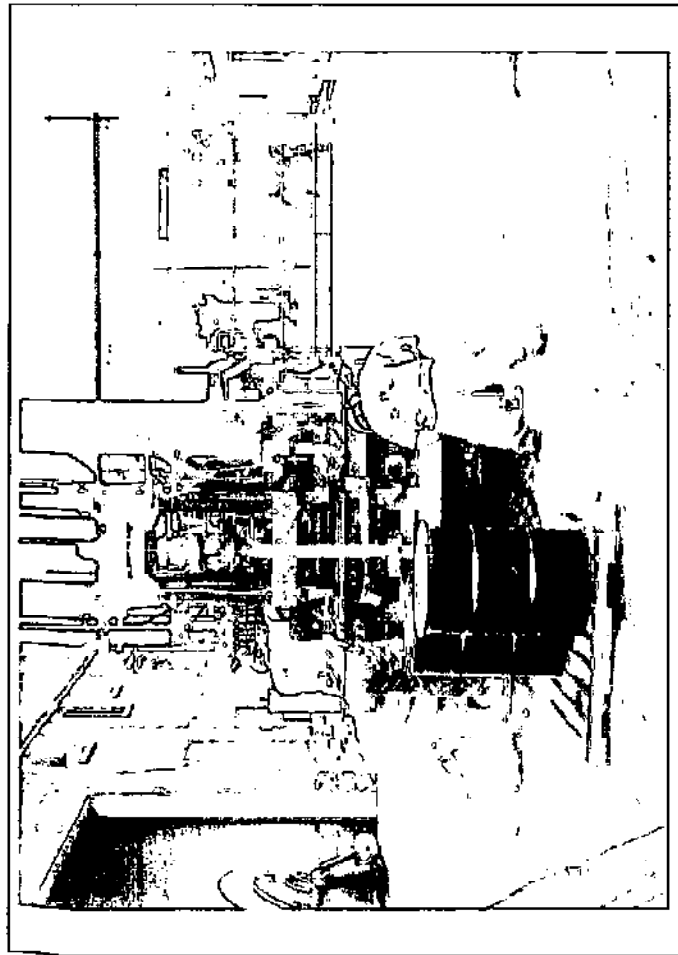
Location/Direction: Facing north

Drill rig set up at soil boring B-13.

by DWL: 08/10/04



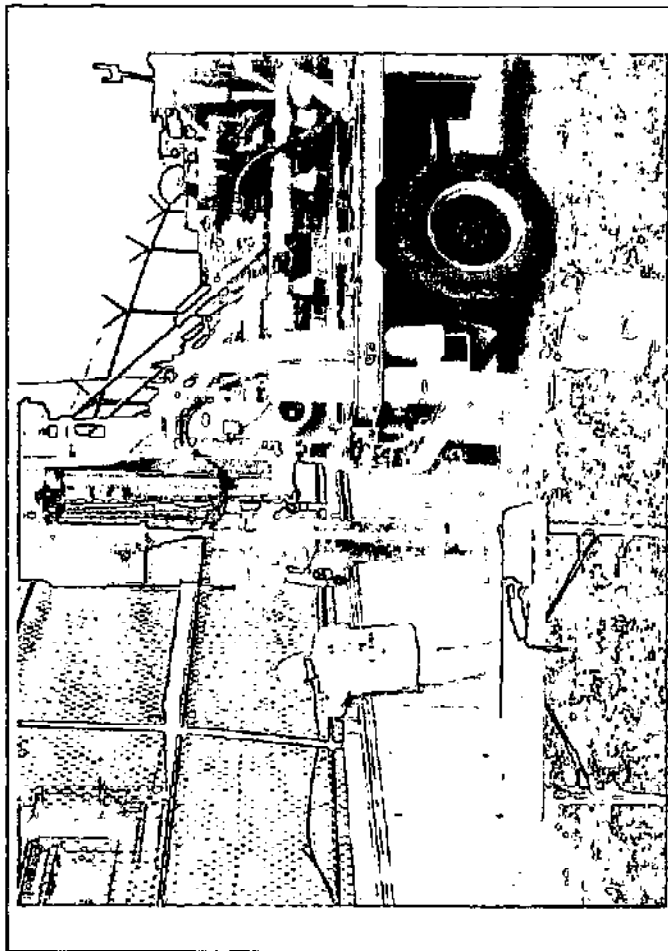
PHOTO LOG  
SiPi Metals  
1720 N. Elston  
Chicago, IL  
Project 15-04183.00-003



**PHOTOGRAPH # 5**

Location/Direction: Facing south  
Drilling at MW-4.

by DWL: 08/10/04

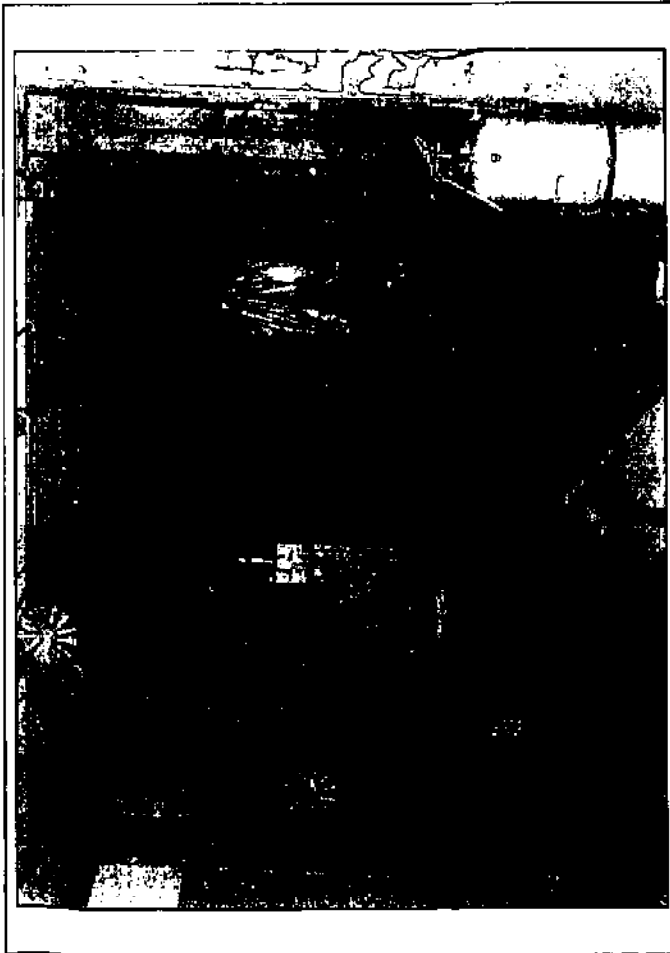


**PHOTOGRAPH # 6**

Location/Direction: Facing southeast  
Drilling at soil boring B-20; at the west side of the concrete retention basin.

by DWL: 08/10/04

PHOTO LOG  
SIPi Metals  
1720 N. Elston  
Chicago, IL  
Project 15-04183.00-003

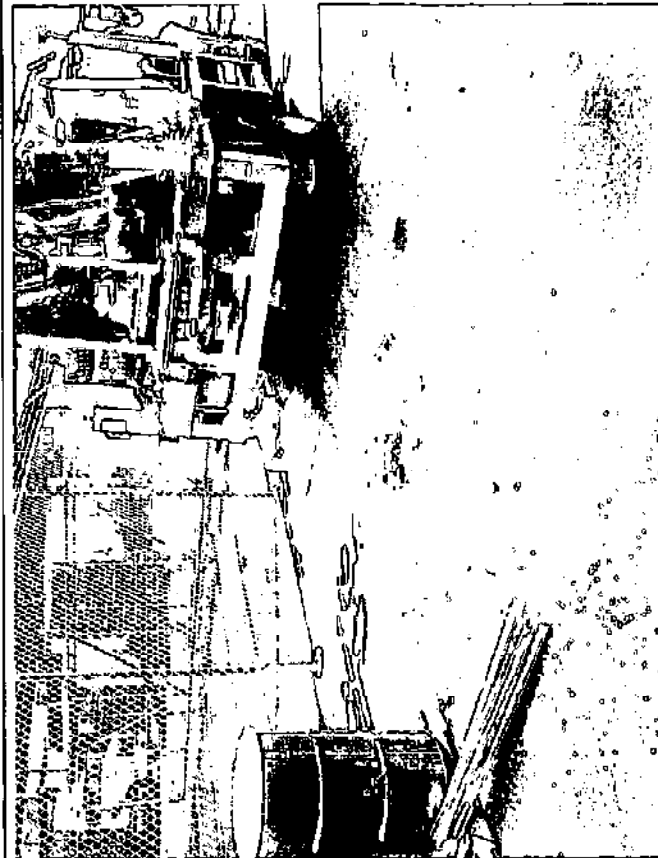


**PHOTOGRAPH # 7**

Location/Direction: Facing west

Geoprobe set up at soil boring B-23 in the basement of 1620 Besly Ct.

*by DWL- 08/11/04*



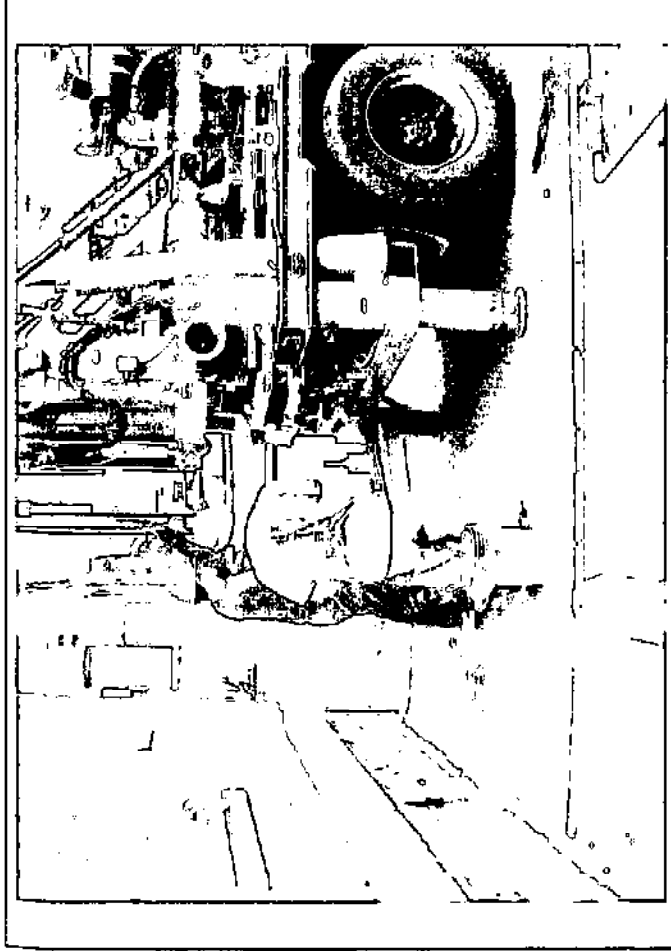
**PHOTOGRAPH # 8**

Location/Direction: Facing east

Completed MW-6 before putting on the flushmount cover.

*by DWL- 08/11/04*

**PHOTO LOG**  
SiPi Metals  
1720 N. Elston  
Chicago, IL  
Project 15-04183.00-003

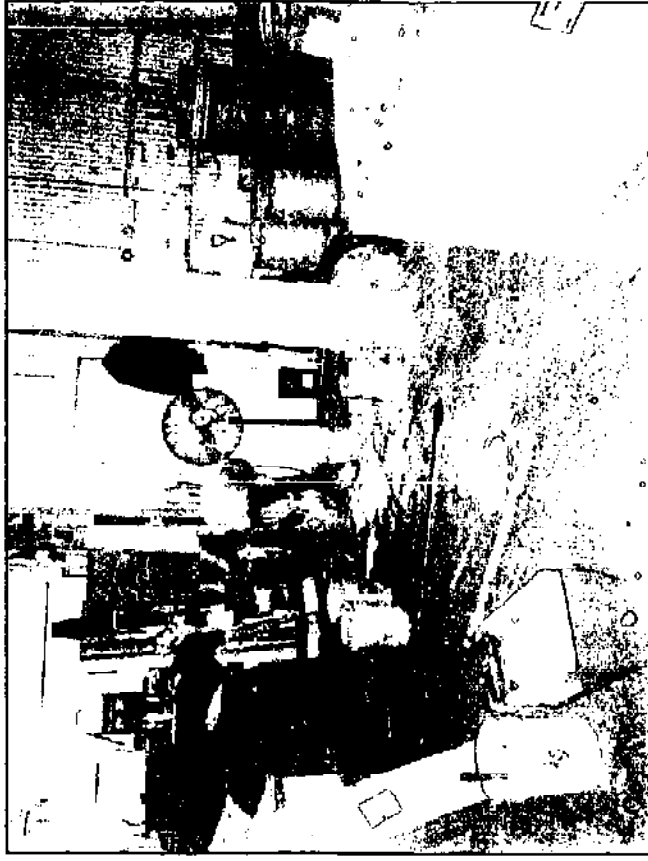


**PHOTOGRAPH # 9**

Location/Direction: Facing east

Drilling at MW-5 at the southeast corner of the building.

by DWL: 08/11/04



**PHOTOGRAPH # 10**

Location/Direction: Facing west

Soil boring B-1 inside the northeast corner of the building.

by DWL: 08/12/04



## **APPENDIX A**

### **SOIL BORING LOGS**



BORING NO: B-1		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipi Metals						
BORING LOCATION: NE corner of North Section of building				COORDINATES:						
DRILLING CO: CS Drilling				DRILLER: M. Natali						
DRILLING EQUIP: Dingo 420				BOREHOLE DIA: 2"						
START DATE: 8/12/04		FINISH DATE: 8/12/04		LOGGED BY: D. Lamsma						
START TIME (hours): 0745		FINISH TIME (hours): 0830		CHECKED BY: M. Mueller						
DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	CONCRETE									VOCs, 8 RCRA Metals, TCLP 8 RCRA Metals, pH
1	FILL Gravel, gray, moist			1.5/2	HPU	M	-	1	-	
2	FILL Sand, brown, moist, fine to coarse grained, some silt and gravel, concrete chips			1.5/2	HPU	M	-	4.6	6	
4	Refusal at 4.0 Feet									
6										
8	NOTE: G. Phillips indicated that there is possibly a sub-floor at this location									
10										
12										
14										
16										
18										
20										



BORING NO: B-2		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipi Metals					
BORING LOCATION: Adjacent to abandoned 9,000 gal UST				COORDINATES:					
DRILLING CO: CS Drilling				DRILLER: M. Natali					
DRILLING EQUIP: Bobcat Geoprobe				BOREHOLE DIA: 2"					
START DATE: 8/13/04		FINISH DATE: 8/13/04				LOGGED BY: D. Lamsma			
START TIME (hours): 0930		FINISH TIME (hours): 1015				CHECKED BY: M. Mueller			

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	CONCRETE									
1	FILL Gravel, dark brown, moist, some sand			2/2	HPU	M	-	6.2	7	BTEX, PNAs
2	FILL Silty clay, gray, moist, some fine to coarse sand, soft, cohesive			2/2	HPU	M	-	0.9	7.3	
3	FILL Sand, black, saturated, fine to coarse grained, some silt and gravel			1.5/2	HPU	S	-	-	-	
4	SILTY CLAY (CL) Gray, moist, some medium to coarse sand, soft, cohesive			1.5/2	HPU	M	-	1.8	8.7	BTEX, PNAs
5	Grades brown, gray mottle, stiff at 8.0 feet			1.5/2	HPU	M	-	1.1	9.6	BTEX, PNAs
6				1.5/2	HPU	M	-	1.2	11.8	
7	End of Boring at 12.0 Feet									GW for BTEX, PNAs



BORING NO: B-3		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipi Metals					
BORING LOCATION: East side of Middle section of building				COORDINATES:					
DRILLING CO: CS Drilling				DRILLER: M. Natali					
DRILLING EQUIP: Bobcat Geoprobe				BOREHOLE DIA: 2"					
START DATE: 8/13/04		FINISH DATE: 8/13/04				LOGGED BY: D. Lamsma			
START TIME (hours): 0750		FINISH TIME (hours): 0750				CHECKED BY: M. Mueller			

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (5")	SCAN	HEADSPACE	
0	CONCRETE									
1	FILL Silty clay, brown, moist, soft, cohesive			1.5/2	HPU	M	-	10.8	10.7	VOCs, PNAs, 8 RCRA Metals, TCLP & RCRA Metals, pH
2	FILL Gravel, light brown, moist, some sand			1.5/2	HPU	M/W	-	-	-	
3	FILL Sand, black, wet, fine to medium grained, with silt Saturated at 4.0 feet			1.5/2	HPU	S/M	-	-	-	
4	SILTY CLAY (CL) Gray, moist, some fine to medium sand, soft, cohesive			1.5/2	HPU	M	-	-	-	
5										
8	End of Boring at 8.0 Feet									GW for VOCs, PNAs, 8 RCRA Metals, TCLP & RCRA Metals
10										
12										
14										
16										
18										
20										



BORING NO: B-4		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipi Metals						
BORING LOCATION: North end of transformers				COORDINATES:						
DRILLING CO: CS Drilling				DRILLER: M. Natali						
DRILLING EQUIP: Dingo 420				BOREHOLE DIA: 2"						
START DATE: 8/12/04		FINISH DATE: 8/12/04			LOGGED BY: D. Lamsma					
START TIME (hours): 1217		FINISH TIME (hours): 1301			CHECKED BY: M. Mueller					
DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0 ft m	CONCRETE									
1	FILL Gravel, gray, moist			2/2	HPU	M	-	21.1	10.9	PNAs, PCBs, 8 RCRA Metals, TCLP 8 RCRA Metals, pH
2	CONCRETE									
3	FILL Sand, dark brown, moist, fine to coarse grained, some silt, brick fragments Saturated at 4.0 feet			2/2	HPU	M	-	36.9	52.7	BTEX, PNAs, PCBs, 8 RCRA Metals, TCLP 8 RCRA Metals, pH
4										
5	SILTY CLAY (CL) Gray, moist, some medium to coarse sand, soft, cohesive			1.5/2	HPU	S/M	-	-	-	
6				1.5/2	HPU	M	-	-	-	
7										
8	End of Boring at 8.0 Feet									
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										





BORING NO: B-5		PROJECT NO: 15-04183,00-003		PROJECT NAME: Sipl Metals					
BORING LOCATION: Inside building; near transformers				COORDINATES:					
DRILLING CO: CS Drilling				DRILLER: M. Natall					
DRILLING EQUIP: Dingo 420				BOREHOLE DIA: 2"					
START DATE: 8/12/04		FINISH DATE: 8/12/04		LOGGED BY: D. Lamsma					
START TIME (hours): 0900		FINISH TIME (hours): 0925		CHECKED BY: M. Mueller					

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	CONCRETE									
0	FILL									
2	Sand, dark brown, black, moist, fine to coarse grained, some silt and gravel, dense		2/2	HPU	M	-	0.7	5.4		
4			2/2	HPU	M	-	21	11.4		
6	Saturated at 6.0 feet		1.5/2	HPU	M	-	10.5	13.1		BTEX, PNAs, 8 RCRA Metals, TCLP 8 RCRA Metals, pH
8	SILTY CLAY (CL) Gray, moist, some medium to coarse sand, cohesive		1.5/2	HPU	S/M	-	--	--		
8	End of Boring at 8.0 Feet									
10										
12										
14										
16										
18										
20										



BORING NO: B-6		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipi Metals			
BORING LOCATION: Compressor room				COORDINATES:			
DRILLING CO: CS Drilling			DRILLER: M. Natali				
DRILLING EQUIP: Jackhammer Geoprobe			BOREHOLE DIA: 2"				
START DATE: 8/12/04		FINISH DATE: 8/12/04			LOGGED BY: D. Lamsma		
START TIME (hours): 1335		FINISH TIME (hours): 1400			CHECKED BY: M. Mueller		

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS	
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (5")	SCAN	HEADSPACE		
0	CONCRETE										BTEX, PNAs, 8 RCRA Metals, TCLP & RCRA Metals, pH
1	FILL Sand, dark brown, moist, fine to coarse grained, some silt, brick fragments, glass pieces			1/2	HPU	M	-	2.7	12.6		
2				1/2	HPU	M	-	2	23.3		
5	Saturated, odor at 5.0 feet			1/2	HPU	M/S	-	-	-		
2	SILTY CLAY (CL) Gray, moist, some medium to coarse sand, soft, cohesive			1/2	HPU	S/M	-	-	-	GW for BTEX, PNAs, 8 RCRA Metals	
8	End of Boring at 8.0 Feet										



BORING NO: B-7		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipi Metals					
BORING LOCATION: SE corner of middle section of building				COORDINATES:					
DRILLING CO: CS Drilling				DRILLER: M. Natali					
DRILLING EQUIP: Jackhammer Geobrobe				BOREHOLE DIA: 2"					
START DATE: 8/12/04		FINISH DATE: 8/12/04				LOGGED BY: D. Lamsma			
START TIME (hours): 1435		FINISH TIME (hours): 1505				CHECKED BY: M. Mueller			

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	CONCRETE									BTEX, PNAS, 8 RCRA Metals, TCLP 8 RCRA Metals, pH
1	FILL Sand, black, moist, fine to medium grained, some silty clay and gravel			1.5/2	HPU	M	-	8.8	9.7	
2				1.5/2	HPU	M	-	11	9.6	
4	More silty clay, saturated, wood chips at 4.0 feet			2/2	HPU	S	-	-	-	
6	SILTY CLAY (CL) Brown, gray mottle, some medium to coarse sand, cohesive			2/2	HPU	M	-	-	-	
8	End of Boring at 8.0 Feet									
10										
12										
14										
16										
18										
20										



BORING NO: B-8		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipi Metals					
BORING LOCATION: Liquid storage room				COORDINATES:					
DRILLING CO: CS Drilling				DRILLER: M. Netaii					
DRILLING EQUIP: Dingo 420				BOREHOLE DIA: 2"					
START DATE: 8/12/04		FINISH DATE: 8/12/04				LOGGED BY: D. Lamama			
START TIME (hours): 1000		FINISH TIME (hours): 1035				CHECKED BY: M. Mueller			

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	CONCRETE									
0.3	FILL Sand, black, moist, fine to coarse grained, some silt			2/2	HPU	M	-	11.3	49.1	BTEX, 8 RCRA Metals, TCLP 8 RCRA Metals, pH, Total Cyanide
2	SILTY CLAY (CL) Brown, gray, moist, some medium to coarse sand, cohesive			2/2	HPU	M	-	21.1	50.8	
4	Grades brown, gray mottle, trace fine gravel, stiff at 4.0 feet			2/2	HPU	M	-	10	31.7	
6				2/2	HPU	M	-	5.5	13.2	BTEX, 8 RCRA Metals, TCLP 8 RCRA Metals, pH, Total Cyanide
8	Grades soft at 8.0 feet			2/2	HPU	W/S/M	-	9.5	8.8	GW for BTEX, 8 RCRA Metals, Total Cyanide
10	Sandy seam, gray, saturated, fine to medium grained from 8.7 to 8.8 feet			2/2	HPU	M	-	9.1	-	
12	Grades gray at 12.0 feet			3/3	HPU	M	-	1.8	-	
14										
16	End of Boring at 15.0 Feet									
18										
20										



BORING NO: B-9		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipi Metals					
BORING LOCATION: Outside SW corner of building				COORDINATES:					
DRILLING CO: CS Drilling				DRILLER: M. Natali					
DRILLING EQUIP: Bobcat Geoprobe				BOREHOLE DIA: 2"					
START DATE: 8/13/04		FINISH DATE: 8/13/04				LOGGED BY: D. Lamsma			
START TIME (hours): 1120		FINISH TIME (hours): 1133				CHECKED BY: M. Mueller			

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (8")	SCAN	HEADSPACE	
0	ASPHALT									
0	FILL Sand, black, moist, fine to coarse grained, some gravel			2/2	HPU	M	-	0.9	7.7	
2				2/2	HPU	M/W	-	1	10.7	
4	Wet at 3.5 feet									
4	SILTY CLAY (CL) Brown, gray mottle, some medium to coarse sand, stiff, cohesive			2/2	HPU	M	-	0.8	8	BTEX
6				2/2	HPU	M	-	0.8	9.1	
8				2/2	HPU	M	-	0.8	12.8	BTEX
10				2/2	HPU	M	-	0.8	9	BTEX
12	End of Boring at 12.0 Feet									
14										
16										
18										
20										



BORING NO: B-10		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipi Metals					
BORING LOCATION: North parking lot				COORDINATES:					
DRILLING CO: CS Drilling				DRILLER: M. Natali					
DRILLING EQUIP: Diedrich D-120				BOREHOLE DIA: 2"					
START DATE: 8/9/04		FINISH DATE: 8/9/04				LOGGED BY: D. Lamsma			
START TIME (hours): 0717		FINISH TIME (hours): 0805				CHECKED BY: M. Mueller			

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	ASPHALT									
0	FILL Gravel, gray, moist, some sand			1.75/2	HPU	M	-	0	0	
2	FILL Sand, dark brown, moist, fine to medium grained, some silt, trace coarse sand			1.75/2	HPU	M	-	0	0	
4	FILL Silty clay, dark brown, moist, some fine to coarse sand, glass pieces			1.5/2	HPU	M	-	446	191	BTEX, PNAs
6				1.5/2	HPU	M	-	102	10.9	
8	TOPSOIL Black, moist, some fine sand, silty Saturated, sheen at 8.0 feet			2/2	HPU	S/M	-	-	-	
10	SILTY CLAY (CL) Gray, brown, moist, some medium to coarse sand, soft			2/2	HPU	M	-	-	-	GW for BTEX, PNAs
12	End of Boring at 12.0 Feet									
14										
16										
18										
20										



BORING NO: B-11	WELL NO: MW-3	PROJECT NO: 15-04183.00-003	PROJECT NAME: Slip Metals
BORING LOCATION: North parking lot		COORDINATES:	
DRILLING CO: CS Drilling	DRILLER: M. Natall	LOGGED BY: D. Lamsma	
DRILLING EQUIP: Diedrich D-120	SCREEN INTERVAL: 5.0 to 15.0 ft bgs	CHECKED BY: M. Mueller	
STATIC WATER LEVEL: 3.70' toe	SCREEN MTL/SLOT: PVC/0.01	START DATE: 8/9/04	
BOREHOLE DIA: 8.25"	STICKUP: Flushmount	START TIME (hours): 0900	
TOP of CASING ELEVATION: 101.82' Rel. Elev.	G.S. ELEVATION: 102.14' Rel Elev.	FINISH DATE: 8/9/04	
RISER DIA/MTL/LGTH: 2"/PVC/5'	DEV. METHODS: Bailer	FINISH TIME (hours): 0927	

DEPTH	DESCRIPTION	GRAPHIC	WELL	SAMPLES					PID		REMARKS
				NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	ASPHALT										
0	FILL Gravel, gray, moist, some fine to coarse sand			2/2	HPU	M	-	0	7.6		
2	FILL Sand, dark brown, moist, fine to medium grained, with silt, brick fragments			2/2	HPU	M	-	55	258		
4	FILL Silty clay, dark brown, moist, some medium to coarse sand			1/2	HPU	M	-	681	798		BTEX, PNAs
6	FILL Sand, black, moist, fine to medium grained, some silt, odor			1/2	HPU	M	-	260	257		
8	PEAT (PT) Black, moist, soft, organics										
10	SAND (SW) Brown, saturated, fine to coarse grained, some silt			2/2	HPU	S/M	-	-	-		
12	SILTY CLAY (CL) Brown, gray mottle, some coarse sand, stiff			2/2	HPU	M	-	-	-		
14				3/3	HPU	M	-	-	-		
16	End of Boring at 15.0 Feet										
18											
20											



BORING NO: B-12		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipi Metals			
BORING LOCATION: West of north parking lot				COORDINATES:			
DRILLING CO: CS Drilling			DRILLER: M. Natall				
DRILLING EQUIP: Diedrich D-120			BOREHOLE DIA: 2"				
START DATE: 8/9/04		FINISH DATE: 8/9/04		LOGGED BY: D. Lamsma			
START TIME (hours): 0825		FINISH TIME (hours): 0845		CHECKED BY: M. Mueller			

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	ASPHALT									
0.5	FILL Gravel, gray, moist, some fine to coarse sand			2/2	HPU	M	-	0	0	
2	FILL Sand, dark brown, moist, fine to medium grained, some silt			2/2	HPU	M	-	0	0	BTEX, PNAs
4				2/2	HPU	M	-	0	0	
6	TOPSOIL Black, moist, silty, some fine sand			2/2	HPU	M	-	0	0	
8	SILTY CLAY (CL) Gray, moist, some medium to coarse sand, soft, cohesive Grades stiff at 8.0 feet			2/2	HPU	M	-	0	0	BTEX, PNAs
10				1.5/2	HPU	M	-	0	0	
12				1.5/2	HPU	M	-	0	0	BTEX, PNAs
12.0	End of Boring at 12.0 Feet									





BORING NO: B-13		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipi Metals						
BORING LOCATION: West of Taylor Bayhouse				COORDINATES:						
DRILLING CO: CS Drilling				DRILLER: M. Natali						
DRILLING EQUIP: Diedrich D-120				BOREHOLE DIA: 2"						
START DATE: 8/10/04		FINISH DATE: 8/10/04				LOGGED BY: D. Lamsma				
START TIME (hours): 0745		FINISH TIME (hours): 0800				CHECKED BY: M. Mueller				
DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	ASPHALT									
0	FILL									
2	Sand, black, moist, fine to coarse grained, some gravel		2/2	HPU	M	-	0	3.9	8 RCRA Metals, TCLP 8 RCRA Metals, pH	
2	Grades tan, fine to medium grained at 2.0 feet		2/2	HPU	MW	-	0.2	2.8	8 RCRA Metals, TCLP 8 RCRA Metals, pH	
4	Wet at 3.5 feet									
4	Grades dark brown, saturated, fine to coarse grained, some fine gravel at 4.0 feet		1.5/2	HPU	S/M	-	-	-		
6	SILTY CLAY (CL)									
6	Gray, moist, soft, cohesive		1.5/2	HPU	M	-	0	2.4		
8	Grades brown, gray mottle, some coarse sand and fine gravel at 8.0 feet		2/2	HPU	M	-	-	-		
10			2/2	HPU	M	-	-	-		
12	End of Boring at 12.0 Feet									
14										
16										
18										
20										



BORING NO: B-14		WELL NO: MW-2		PROJECT NO: 15-04183.00-003		PROJECT NAME: Slpi Metals	
BORING LOCATION: West side of building				COORDINATES:			
DRILLING CO: CS Drilling		DRILLER: M. Natali		LOGGED BY: D. Lamsma			
DRILLING EQUIP: Diedrich D-120		SCREEN INTERVAL: 5.0 to 15.0 ft bgs		CHECKED BY: M. Mueller			
STATIC WATER LEVEL: 9.17' toe		SCREEN MTL/SLOT: PVC/0.01		START DATE: 8/8/04			
BOREHOLE DIA: 8.25"		STICKUP: Flushmount		START TIME (hours): 1100			
TOP of CASING ELEVATION: 100.65' Rel. Elev.		G.S. ELEVATION: 101.40' Rel. Elev.		FINISH DATE: 8/9/04			
RISER DIA/MTL/LGTH: 2"/PVC/5'		DEV. METHODS: Bailer		FINISH TIME (hours): 1150			

DEPTH	DESCRIPTION	GRAPHIC	WELL	SAMPLES					PID		REMARKS
				NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	CONCRETE										
0	FILL Gravel, gray, moist, some sand			2/2	HPU	M	-	-	-	-	
2	FILL Silty clay, dark brown, moist, some fine to coarse sand, stiff, glass pieces			2/2	HPU	M	-	0	0		
4	SILTY CLAY (CL) Gray, moist, some medium to coarse sand, trace fine gravel, stiff			1.5/2	HPU	M	-	0	0		8 RCRA Metals, TCLP 8 RCRA Metals, pH
6	Grades brown, gray mottle at 5.5 feet			1.5/2	HPU	M	-	0	0		8 RCRA Metals, TCLP 8 RCRA Metals, pH
8				2/2	HPU	M	-	0	0		
10				2/2	HPU	M	-	0	0		8 RCRA Metals, TCLP 8 RCRA Metals
12	Grades gray, some fine to medium sand, very soft, cohesive at 12.0 feet			2/2	HPU	M	-	0	0		
14				2/2	HPU	M	-	0	0		
16	End of Boring at 16.0 Feet										
18											
20											



BORING NO: B-15		PROJECT NO: 15-04153.00-003		PROJECT NAME: Sipi Metals			
BORING LOCATION: North of propane tank				COORDINATES:			
DRILLING CO: CS Drilling			DRILLER: M. Natall				
DRILLING EQUIP: Diedrich D-120			BOREHOLE DIA: 2"				
START DATE: 8/9/04		FINISH DATE: 8/9/04		LOGGED BY: D. Lamsma			
START TIME (hours): 1430		FINISH TIME (hours): 1510		CHECKED BY: M. Mueller			

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	ASPHALT									
1	FILL Gravel, gray, moist, some fine to coarse sand			2/2	HPU	M	-	0	27.7	
2	FILL Sand and silty clay, dark brown, moist, fine to medium sand, brick fragments, nails			2/2	HPU	M	-	0	67.6	BTEX, PNAs
3	Grades fine to coarse sand, saturated, odor at 4.0 feet									
4	SILTY CLAY (CL) Brown, gray mottle, some medium to coarse sand			2/2	HPU	S/M	-	0	0	
5				2/2	HPU	M	-	13	0	BTEX, PNAs
6				2/2	HPU	M	-	7.1	0.6	
7				2/2	HPU	M	-	0	0	BTEX, PNAs
8										
9	NO RECOVERY									
10				0/3	HPU	-	-	-	-	
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										



BORING NO: B-16		PROJECT NO: 15-04153,00-003		PROJECT NAME: Sipi Metals						
BORING LOCATION: North of retention pond				COORDINATES:						
DRILLING CO: CS Drilling				DRILLER: M. Natali						
DRILLING EQUIP: Diedrich D-120				BOREHOLE DIA: 2"						
START DATE: 8/10/04		FINISH DATE: 8/10/04			LOGGED BY: D. Lamsma					
START TIME (hours): 0717		FINISH TIME (hours): 0730			CHECKED BY: M. Mueller					
DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	ASPHALT									8 RCRA Metals, TCLP 8 RCRA Metals, pH  8 RCRA Metals, TCLP 8 RCRA Metals, pH
2	FILL Sand, brown, black, moist, fine to medium grained, some gravel Grades tan at 2.2 feet		2/2	HPU	M	-	0	2.1		
4	Saturated at 4.0 feet	2/2	HPU	M	-	0	1.6			
6	SILTY CLAY (CL) Brown, gray mottle, moist, some coarse sand, stiff		2/2	HPU	S/M	-	0	2.5		
8			2/2	HPU	M	-	0	2.1		
10			1.5/2	HPU	M	-	-	-		
12			1.5/2	HPU	M	-	-	-		
14	End of Boring at 12.0 Feet									



BORING NO: B-17		WELL NO: MW-4		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipi Metals	
BORING LOCATION: East of Wheelabrator Bayhouse				COORDINATES:			
DRILLING CO: CS Drilling		DRILLER: M. Natali		LOGGED BY: D. Lamsma			
DRILLING EQUIP: Diedrich D-120		SCREEN INTERVAL: 5.0 to 15.0 ft bgs		CHECKED BY: M. Mueller			
STATIC WATER LEVEL: 11.26' to c		SCREEN MTL/SLOT: PVC/0.01		START DATE: 8/10/04			
BOREHOLE DIA: 8.25"		STICKUP: Flushmount		START TIME (hours): 1018			
TOP of CASING ELEVATION: 100.40' Rel. Elev.		G.S. ELEVATION: 100.82' Rel. Elev.		FINISH DATE: 8/10/04			
RISER DIA/MTL/LGTH: 2"/PVC/5'		DEV. METHODS: Bailer		FINISH TIME (hours): 1040			

DEPTH	DESCRIPTION	GRAPHIC	WELL	SAMPLES					PID		REMARKS
				NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	ASPHALT										
0	FILL Gravel, gray, moist, some sand			2/2	HPU	M	-	0.7	4.4	8 RCRA Metals, TCLP 8 RCRA Metals, pH	
2	FILL Sand, black, moist, fine to coarse grained, some silt and gravel, brick fragments, slag			2/2	HPU	M	-	1.6	3.3	8 RCRA Metals, TCLP 8 RCRA Metals, pH	
4	SILTY CLAY (CL) Gray, moist, some medium sand Grades brown, gray mottle, some coarse sand at 4.0 feet			1.5/2	HPU	M	-	0.5	2.9	8 RCRA Metals, TCLP 8 RCRA Metals	
6				1.5/2	HPU	M	-	0	3.1	8 RCRA Metals, TCLP 8 RCRA Metals	
8	Trace gravel from 8.0 to 12.0 feet			1.75/2	HPU	M	-	0	3.5		
10				1.75/2	HPU	M	-	0	2.7		
12				3/3	HPU	M	-	0	1		
14											
16	End of Boring at 15.0 Feet										
18											
20											



BORING NO: B-18		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipi Metals					
BORING LOCATION: Outside fence, east of railroad tracks				COORDINATES:					
DRILLING CO: CS Drilling				DRILLER: M. Natali					
DRILLING EQUIP: Diedrich D-120				BOREHOLE DIA: 8.25"					
START DATE: 8/10/04		FINISH DATE: 8/10/04				LOGGED BY: D. Lamsma			
START TIME (hours): 1418		FINISH TIME (hours): 1435				CHECKED BY: M. Mueller			

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	TOPSOIL Black, moist, sandy, roots									VOCs, PNAs, 8 RCRA Metals, TCLP 8 RCRA Metals, PH
2	FILL Sand, tan, moist, fine to medium grained		2/2	HPU	M	-	0	4.1		
4			2/2	HPU	M	-	1.6	2.9		
6			2/2	HPU	M	-	1	3		
8			2/2	HPU	M	-	1	3.5		
10	Saturated at 8.0 feet Grades dark brown, fine to coarse grained, wood chips at 8.5 feet		1.5/2	HPU	S	-	-	-	VOCs, PNAs, 8 RCRA Metals, TCLP 8 RCRA Metals, PH	
12	SILTY CLAY (CL) Brown, gray, moist, some medium to coarse sand, soft, cohesive		1.5/2	HPU	M	-	-	-		
14	End of boring at 12.0 Feet									
16										
18										
20										



BORING NO: B-19		PROJECT NO: 15-04183,00-003		PROJECT NAME: Sipi Metals					
BORING LOCATION: Outside fence; west of storage bins				COORDINATES:					
DRILLING CO: CS Drilling				DRILLER: M. Natali					
DRILLING EQUIP: Diedrich D-120				BOREHOLE DIA: 2"					
START DATE: 8/10/04		FINISH DATE: 8/10/04				LOGGED BY: D. Lamsma			
START TIME (hours): 1445		FINISH TIME (hours): 1500				CHECKED BY: M. Mueller			

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	FILL									VOCs, PNAs, 8 RCRA Metals, TCLP 8 RCRA Metals, pH
1	Sand, brown, moist, fine to medium grained, trace fine gravel			1.5/2	HPU	M	-	0	2.8	
2				1.5/2	HPU	M	-	0	3.2	
4	Grades tan, no gravel at 4.0 feet			2/2	HPU	M	-	0	3.7	
6				2/2	HPU	M/W	-	0	2.3	
8	Wet at 7.0 feet			2/2	HPU	W/M	-	-	-	
10	SILTY CLAY (CL) Brown, gray, moist, some medium to coarse sand, soft, cohesive			2/2	HPU	M	-	-	-	VOCs, PNAs, 8 RCRA Metals, TCLP 8 RCRA Metals, pH
12				2/2	HPU	M	-	-	-	
14	End of Boring at 12.0 Feet									



BORING NO: B-20		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipi Metals			
BORING LOCATION: Outside fence; west of retention pond				COORDINATES:			
DRILLING CO: CS Drilling			DRILLER: M. Natali				
DRILLING EQUIP: Diedrich D-120			BOREHOLE DIA: 2"				
START DATE: 8/10/04		FINISH DATE: 8/10/04			LOGGED BY: D. Lamsma		
START TIME (hours): 1515		FINISH TIME (hours): 1523			CHECKED BY: M. Mueller		

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	FILL Sand, brown, moist, fine to coarse grained, some silt and gravel									VOCs, PNAs, 8 RCRA Metals, TCLP 8 RCRA Metals, pH
			2/2	HPU	M	-	0	4.6		
2				2/2	HPU	M/S	-	0	3.4	
4	SILTY CLAY (CL) Gray, moist, some medium to coarse sand and fine gravel			2/2	HPU	S/M	-	-	-	VOCs, PNAs, 8 RCRA Metals, TCLP 8 RCRA Metals, pH
6				2/2	HPU	M	-	-	-	
8	End of Boring at 8.0 Feet									
10										
12										
14										
16										
18										
20										





BORING NO: B-21	WELL NO: MW-6	PROJECT NO: 15-04183.00-003	PROJECT NAME: Sipi Metals
BORING LOCATION: North of 1660 Besty Ct		COORDINATES:	
DRILLING CO: CS Drilling	DRILLER: M. Natali	LOGGED BY: D. Lamsma	
DRILLING EQUIP: Diedrich D-120	SCREEN INTERVAL: 4.0 to 14.0 ft bgs	CHECKED BY: M. Mueller	
STATIC WATER LEVEL: 3.67' to c	SCREEN MTL/SLOT: PVC/0.01	START DATE: 8/11/04	
BOREHOLE DIA: 8.25"	STICKUP: Flushmount	START TIME (hours): 0755	
TOP of CASING ELEVATION: 100.51' Rel. Elev.	G.S. ELEVATION: 101.00' Rel. Elev.	FINISH DATE: 8/11/04	
RISER DIA/MTL/LGTH: 2"/PVC/4'	DEV. METHODS: Baller	FINISH TIME (hours): 0820	

DEPTH	DESCRIPTION	GRAPHIC	WELL	SAMPLES					PID		REMARKS
				NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (S")	SCAN	HEADSPACE	
0 ft	ASPHALT										
0	FILL										
2	Sand, dark brown, moist, fine to coarse grained, some silty clay and gravel			1.5/2	HPU	M	-	1.5	2.8		VOCs
4	Saturated at 4.0 feet			1.5/2	HPU	M	-	1.2	3.1		
6	SILTY CLAY (CL)			2/2	HPU	S/M	-	-	-		
8	Gray, moist, some medium to coarse sand, soft			2/2	HPU	M	-	-	-		
10	Grades brown, gray mottle at 6.0 feet			1.75/2	HPU	M	-	-	-		
12				1.75/2	HPU	M	-	-	-		
14				2/3	HPU	M	-	-	-		
16	End of Boring at 15.0 Feet										
18											
20											



BORING NO: B-22		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipl Metals					
BORING LOCATION: Basement of 1660 Besly Ct.				COORDINATES:					
DRILLING CO: CS Drilling				DRILLER: M. Natali					
DRILLING EQUIP: Dingo 420				BOREHOLE DIA: 2"					
START DATE: 8/11/04		FINISH DATE: 8/11/04				LOGGED BY: D. Lamsma			
START TIME (hours): 1025		FINISH TIME (hours): 1041				CHECKED BY: M. Mueller			

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (S")	SCAN	HEADSPACE	
0	CONCRETE									
0	FILL									
0	Sand, brown, moist, fine to medium grained, some silt			2/2	HPU	M	-	4	2.8	
2	SILTY CLAY (CL)									
2	Brown, gray mottie, moist, some medium to coarse sand, stiff, cohesive			2/2	HPU	M	-	1.8	2.3	
4										
4				2/2	HPU	M	-	2.5	3.2	VOCs, PNAs
6	Trace fine gravel from 6.0 to 8.0 feet									
6	Sand seam, saturated from 6.8 to 7.0 feet			2/2	HPU	M/S	-	3.4	2.9	
8										
8				1.5/2	HPU	M	-	-	-	
10										
10				1.5/2	HPU	M	-	-	-	
12	End of Boring at 12.0 Feet									GW for VOCs, PNAs
14										
16										
18										
20										



BORING NO: B-23		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipi Metals					
BORING LOCATION: Basement of 1680 Besly Ct.				COORDINATES:					
DRILLING CO: CS Drilling				DRILLER: M. Natali					
DRILLING EQUIP: Dingo 420				BOREHOLE DIA: 2"					
START DATE: 8/11/04		FINISH DATE: 8/11/04			LOGGED BY: D. Lamsma				
START TIME (hours): 0930		FINISH TIME (hours): 1016			CHECKED BY: M. Mueller				

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	CONCRETE									
0	FILL Sand, dark brown, moist, fine to coarse grained, some silt and gravel			1.5/2	HPU	M	-	4.6	3	VOCs, PNAs
2	SILTY CLAY (CL) Brown, gray mottle, some medium to coarse sand, soft, cohesive			1.5/2	HPU	M	-	3.3	3	
4	Grades stiff at 4.0 feet			0.5/2	HPU	M	-	5	2.3	
6				0.5/2	HPU	M	-	3.4	2.2	
8	Grades soft at 8.0 feet			1.75/2	HPU	M	-	3.8	2.9	VOCs, PNAs
10	Grades gray at 10.0 feet			1.75/2	HPU	M	-	3.3	2.8	
12										
14				3/3	HPU	M	-	3.2	4.4	VOCs, PNAs
16	End of Boring at 15.0 Feet									
18										
20										



BORING NO: B-24		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipi Metals					
BORING LOCATION: In parking lot north of 1660 Besly Ct.				COORDINATES:					
DRILLING CO: CS Drilling				DRILLER: M. Natali					
DRILLING EQUIP: Diedrich D-120				BOREHOLE DIA: 2"					
START DATE: 8/11/04		FINISH DATE: 8/11/04				LOGGED BY: D. Lamsma			
START TIME (hours): 0718		FINISH TIME (hours): 0734				CHECKED BY: M. Mueller			

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	ASPHALT									
0	FILL Sand, black, moist, fine to coarse grained, some silt and gravel			2/2	HPU	M	-	0	2.2	
2				2/2	HPU	M	-	0.6	2.9	
4	SILTY CLAY (CL) Gray, moist, some fine to medium sand, soft			1/2	HPU	M	-	0.5	3.2	VOCs, PNAs
6				1/2	HPU	M	-	0.8	2.1	VOCs, PNAs
8	Grades brown, gray mottle, some medium to coarse sand and fine gravel, stiff at 8.0 feet			2/2	HPU	M	-	1	2.3	
10				2/2	HPU	M	-	1.3	3.3	VOCs, PNAs
12	End of boring at 12.0 Feet									
14										
16										
18										
20										



BORING NO: B-25		PROJECT NO: 15-04183.00-003				PROJECT NAME: Sipi Metals			
BORING LOCATION: Inside the Forsyth building						COORDINATES:			
DRILLING CO: CS Drilling					DRILLER: M. Natali				
DRILLING EQUIP: Dingo 420					BOREHOLE DIA: 2"				
START DATE: 8/11/04			FINISH DATE: 8/11/04			LOGGED BY: D. Lamsma			
START TIME (hours): 1320			FINISH TIME (hours): 1405			CHECKED BY: M. Mueller			

DEPTH	DESCRIPTION	GRAPHIC	SAMPLES					PID		REMARKS
			NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	CONCRETE									
1	FILL Sand, brown, black, moist, fine to coarse grained, some silt, brick fragments, concrete pieces			2/2	HPU	M	-	19.7	3.6	VOCs, PNAs, 8 RCRA Metals, TCLP & RCRA Metals, pH
2				2/2	HPU	M	-	17.9	3.6	
3	Ashpalt and glass pieces from 4.0 to 8.0 feet			1.25/2	HPU	M	-	15.6	3.7	
4				1.25/2	HPU	M	-	16.7	4	
5	Saturated, wood chips at 8.5 feet			1.25/2	HPU	W/S/M	-	-	-	
6	SILTY CLAY (CL) Brown, moist, some medium to coarse sand, stiff, cohesive			1.25/2	HPU	M	-	-	-	
7	End of Boring at 12.0 Feet									



BORING NO: B-27		WELL NO: MW-1		PROJECT NO: 15-04183.00-003		PROJECT NAME: Sipi Metals	
BORING LOCATION: Northwest of propane tank				COORDINATES:			
DRILLING CO: CS Drilling		DRILLER: M. Natali		LOGGED BY: D. Lamsma			
DRILLING EQUIP: Diedrich D-120		SCREEN INTERVAL: 4.0 to 14.0 ft bgs		CHECKED BY: M. Mueller			
STATIC WATER LEVEL: 2.58' loc		SCREEN MTL/SLOT: PVC/0.01		START DATE: 8/10/04			
BOREHOLE DIA: 8.25"		STICKUP: Flushmount		START TIME (hours): 0820			
TOP of CASING ELEVATION: 101.19' Rel. Elev.		G.S. ELEVATION: 101.74' Rel. Elev.		FINISH DATE: 8/10/04			
RISER DIA/MT/LGTH: 2"/PVC/4'		DEV. METHODS: Bailer		FINISH TIME (hours): 0908			

DEPTH	DESCRIPTION	GRAPHIC	WELL	SAMPLES					PID		REMARKS
				NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (6")	SCAN	HEADSPACE	
0	CONCRETE										8 RCRA Metals, TCLP 8 RCRA Metals, pH
1	FILL Sand, dark brown, moist, fine to coarse grained, some gravel, slag, wood chips  Wet at 3.0 feet Saturated at 3.5 feet			1.2/2	HPU	M	-	0	-		
2				1.2/2	HPU	WS	-	-	-		
3				1.5/2	HPU	S/M	-	-	-		
4	SILTY CLAY (CL) Brown, gray mottle, moist, some coarse sand, soft			1.5/2	HPU	M	-	-	-		
5	NO RECOVERY			0/2	HPU	-	-	-	-		
6				0/2	HPU	-	-	-	-		
7											
8	SILTY CLAY (CL) Brown, gray mottle, moist, some coarse sand, soft			2/3	HPU	M	-	-	-		
9											
10											
11											
12											
13											
14											
15											
16											
17											
18											
19											
20											



BORING NO: B-28		WELL NO: MW-5		PROJECT NO: 16-04183.00-003		PROJECT NAME: Sipi Metals	
BORING LOCATION: NW corner of Elston Ave and Wabansia Ave				COORDINATES:			
DRILLING CO: CS Drilling		DRILLER: M. Natall		LOGGED BY: D. Lamsma			
DRILLING EQUIP: Diedrich D-120		SCREEN INTERVAL: 5.0 to 15.0 ft bgs		CHECKED BY: M. Mueller			
STATIC WATER LEVEL: 3.78' toe		SCREEN MTL/SLOT: PVC/0.01		START DATE: 8/11/04			
BOREHOLE DIA: 8.25"		STICKUP: Flushmount		START TIME (hours): 1514			
TOP of CASING ELEVATION: 101.82' Rel. Elev.		G.S. ELEVATION: 102.27' Rel. Elev.		FINISH DATE: 8/11/04			
RISER DIA/MTL/LGTH: 2"/PVC/5'		DEV. METHODS: Bailer		FINISH TIME (hours): 1535			

DEPTH	DESCRIPTION	GRAPHIC	WELL	SAMPLES					PID		REMARKS
				NUMBER	RECOVERY	METHOD	MOISTURE	BLOW CNT (8")	SCAN	HEADSPACE	
0	ASPHALT										VOCs, PNA's, 8 RCRA Metals, TCLP 8 RCRA Metals, pH
1	FILL Gravel, gray, moist, some sand			1.5/2	HPU	M	-	0.1	1.8		
2	FILL Sand, dark brown, moist, fine to medium grained, some silt			1.5/2	HPU	M	-	0.1	12		
4	NO RECOVERY Bottom 2.5 feet of sample tube was wet			0/2	HPU	-	-	-	-		
6				0/2	HPU	-	-	-	-		
8	SILTY CLAY (CL) Brown, gray mottle, stiff, cohesive			2/2	HPU	M	-	-	-		
10				2/2	HPU	M	-	-	-		
12				3/3	HPU	M	-	-	-		
14	End of Boring at 15.0 Feet										



## **APPENDIX B**

### **ANALYTICAL LABORATORY REPORTS**





# First Environmental Laboratories, Inc.

1600 Shore Road • Naperville, Illinois 60563 • Phone (630) 778-1200 • Fax (630) 778-1233  
IL ELAP / NELAC Accreditation # 100292

## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34321  
Sample Description: B-10A/4-6  
Lab File ID: 34321-28

Date Received: 08/10/04  
Date Taken: 08/09/04  
Time Taken: 8:34  
Date Reported: 08/18/04

Analyte	Result	Units	Flags
Solids, Total	86.55	%	

### BTEX Method 5035A/8260B

Analysis Date: 08/16/04

Benzene	< 2.0	ug/kg	
Toluene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	

### Polynuclear Aromatic Compounds Method 3540C/8270C

Preparation Date: 08/12/04

Analysis Date: 08/15/04

Naphthalene	572	ug/kg	
Acenaphthylene	< 50	ug/kg	
Acenaphthene	818	ug/kg	
Fluorene	1,130	ug/kg	
Phenanthrene	371	ug/kg	
Anthracene	428	ug/kg	
Fluoranthene	894	ug/kg	
Pyrene	996	ug/kg	
Benzo[a]anthracene	416	ug/kg	
Chrysene	401	ug/kg	
Benzo[b]fluoranthene	303	ug/kg	
Benzo[k]fluoranthene	326	ug/kg	
Benzo[a]pyrene	345	ug/kg	
Indeno[1,2,3-cd]pyrene	216	ug/kg	
Dibenz[a,h]anthracene	68	ug/kg	
Benzo[g,h,i]perylene	182	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34322  
Sample Description: B-12A/2-4  
Lab File ID: 34321-28

Date Received: 08/10/04  
Date Taken: 08/09/04  
Time Taken: 9:33  
Date Reported: 08/18/04

Analyte	Result	Units	Flags
Solids, Total	82.94	%	

### BTEX Method 5035A/8260B

Analysis Date: 08/16/04

Benzene	< 2.0	ug/kg
Toluene	< 5.0	ug/kg
Ethyl benzene	< 5.0	ug/kg
Xylenes (total)	< 5.0	ug/kg

### Polynuclear Aromatic Compounds Method 3540C/8270C

Preparation Date: 08/12/04

Analysis Date: 08/14/04

Naphthalene	182	ug/kg
Acenaphthylene	71	ug/kg
Acenaphthene	87	ug/kg
Fluorene	103	ug/kg
Phenanthrene	1,250	ug/kg
Anthracene	332	ug/kg
Fluoranthene	2,780	ug/kg
Pyrene	2,890	ug/kg
Benzo[a]anthracene	1,740	ug/kg
Chrysene	1,870	ug/kg
Benzo[b]fluoranthene	1,590	ug/kg
Benzo[k]fluoranthene	1,710	ug/kg
Benzo[a]pyrene	1,980	ug/kg
Indeno[1,2,3-cd]pyrene	1,150	ug/kg
Dibenz[a,h]anthracene	316	ug/kg
Benzo[g,h,i]perylene	961	ug/kg



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34325  
Sample Description: B-15A/2-4  
Lab File ID: 34321-28

Date Received: 08/10/04  
Date Taken: 08/09/04  
Time Taken: 15:25  
Date Reported: 08/18/04

Analyte	Result	Units	Flags
Solids, Total	81.14	%	

### BTEX Method 5035A/8260B

Analysis Date: 08/16/04

Benzene	< 2.0	ug/kg	
Toluene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	

### Polynuclear Aromatic Compounds Method 3540C/8270C

Preparation Date: 08/12/04

Analysis Date: 08/14/04

Naphthalene	44	ug/kg	
Acenaphthylene	< 50	ug/kg	
Acenaphthene	< 50	ug/kg	
Fluorene	< 50	ug/kg	
Phenanthrene	204	ug/kg	
Anthracene	< 50	ug/kg	
Fluoranthene	134	ug/kg	
Pyrene	116	ug/kg	
Benzo[a]anthracene	77	ug/kg	
Chrysene	97	ug/kg	
Benzo[b]fluoranthene	67	ug/kg	
Benzo[k]fluoranthene	46	ug/kg	
Benzo[a]pyrene	82	ug/kg	
Indeno[1,2,3-cd]pyrene	35	ug/kg	
Dibenz[a,h]anthracene	< 20	ug/kg	
Benzo[g,h,i]perylene	< 50	ug/kg	



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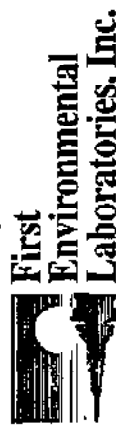
## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34327  
Sample Description: B-14/MW-2A 5  
Lab File ID: 34321-28

Date Received: 08/10/04  
Date Taken: 08/09/04  
Time Taken: 11:19  
Date Reported: 08/18/04

Analyte	Result	Units	Date Analyzed	Method
Solids, Total	83.38	%	08/11/04	160.3
pH @ 25°C (1:10)	8.73	units	08/11/04	9045C
<b>Total Metals</b>				
Arsenic	2.9	mg/kg	08/16/04	3050B/6010B
Barium	46.4	mg/kg	08/16/04	3050B/6010B
Cadmium	<0.1	mg/kg	08/16/04	3050B/6010B
Chromium	24.9	mg/kg	08/16/04	3050B/6010B
Lead	18.0	mg/kg	08/16/04	3050B/6010B
Mercury	<0.05	mg/kg	08/13/04	7470A
Selenium	<0.2	mg/kg	08/16/04	3050B/6010B
Silver	<0.1	mg/kg	08/16/04	3050B/6010B
<b>TCLP Metals</b>				
Arsenic	<0.002	mg/L	08/16/04	3010A/6010B
Barium	<1.0	mg/L	08/16/04	3010A/6010B
Cadmium	<0.001	mg/L	08/16/04	3010A/6010B
Chromium	<0.001	mg/L	08/16/04	3010A/6010B
Lead	0.014	mg/L	08/16/04	3010A/6010B
Mercury	<0.0005	mg/L	08/13/04	7470A
Selenium	<0.002	mg/L	08/16/04	3010A/6010B
Silver	<0.001	mg/L	08/16/04	3010A/6010B

# CHAIN OF CUSTODY RECORD



**First Environmental Laboratories**  
 1600 Shore Road, Suite D  
 Naperville, Illinois 60563  
 Phone: (630) 778-1200 • Fax: (630) 778-1233  
 24 Hr. Pager (708) 569-7507  
 E-mail: info@firstenv.com  
 IEPA Certification# 100292

Company Name: Clayton Group Services

Street Address: 3140 Finley Rd

City: Dennis Grove

Phone: 795-3200

Send Report To: Marie Mueller

Sampled By: Darren Longma

State: IL

Fax: 795-1130

Zip: 60515

Matrix Codes: S = Soil W = Water O = Other		Analyses				Comments	Lab ID.
Date/Time Taken	Sample Description	Matrix	BTEX	PH	TCRP & RCRA Metals		
8/9 0834	B-10A/4-6	S	X				34321
0937	B-12A/2-4	S	X				322
0939	B-12B/6-8	S	X				323
0944	B-12C/10-12	S				HOLD	—
0953	B-11/MW-3A 4-6	S	X				324
1010	GW-10	W				HOLD	—
1525	B-15A/2-4	S	X				325
1520	B-15B/6-8	S	X				326
1512	B-15C/10-12	S				HOLD	—
1119	B-14/MW-2A S	S		X	X		327
1125	B-14/MW-2B 8	S		X	X		328
1128	B-14/MW-2C 11	S				HOLD	—

Cooler Temperature: 15.0 °C

Received within 6 hrs. of collection: \_\_\_\_\_

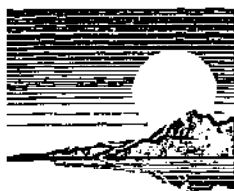
Notes and Special Instructions: \_\_\_\_\_

Relinquished By: [Signature] Date/Time: 8/10/04 0600

Date/Time: 8-10-04 1200

Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_

Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34610  
Sample Description: B-13A/1.5  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/10/04  
Time Taken: 7:55  
Date Reported: 08/20/04

Analyte	Result	Units	Date Analyzed	Method
Solids, Total	93.75	%	08/16/04	160.3
pH @ 25°C (1:10)	8.59	units	08/13/04	9045C
<b>Total Metals</b>				
Arsenic	7.6	mg/kg	08/17/04	3050B/6010B
Barium	88.5	mg/kg	08/17/04	3050B/6010B
Cadmium	14.5	mg/kg	08/17/04	3050B/6010B
Chromium	15.4	mg/kg	08/17/04	3050B/6010B
Lead	1,200	mg/kg	08/17/04	3050B/6010B
Mercury	0.36	mg/kg	08/13/04	7470A
Selenium	<0.2	mg/kg	08/17/04	3050B/6010B
Silver	20.3	mg/kg	08/17/04	3050B/6010B
<b>TCLP Metals</b>				
Arsenic	0.005	mg/L	08/17/04	3010A/6010B
Barium	<1.0	mg/L	08/17/04	3010A/6010B
Cadmium	0.143	mg/L	08/17/04	3010A/6010B
Chromium	0.002	mg/L	08/17/04	3010A/6010B
Lead	0.680	mg/L	08/17/04	3010A/6010B
Mercury	<0.0005	mg/L	08/13/04	7470A
Selenium	<0.002	mg/L	08/17/04	3010A/6010B
Silver	<0.001	mg/L	08/17/04	3010A/6010B



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34608  
Sample Description: B-16A/2  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/10/04  
Time Taken: 7:22  
Date Reported: 08/20/04

Analyte	Result	Units	Date Analyzed	Method
Solids, Total	87.12	%	08/16/04	160.3
pH @ 25°C (1:10)	8.16	units	08/13/04	9045C
<b>Total Metals</b>				
Arsenic	16.0	mg/kg	08/17/04	3050B/6010B
Barium	94.9	mg/kg	08/17/04	3050B/6010B
Cadmium	6.9	mg/kg	08/17/04	3050B/6010B
Chromium	10.8	mg/kg	08/17/04	3050B/6010B
Lead	299	mg/kg	08/17/04	3050B/6010B
Mercury	0.09	mg/kg	08/13/04	7470A
Selenium	<0.2	mg/kg	08/17/04	3050B/6010B
Silver	0.8	mg/kg	08/17/04	3050B/6010B
<b>TCLP Metals</b>				
Arsenic	0.003	mg/L	08/17/04	3010A/6010B
Barium	<1.0	mg/L	08/17/04	3010A/6010B
Cadmium	0.028	mg/L	08/17/04	3010A/6010B
Chromium	<0.001	mg/L	08/17/04	3010A/6010B
Lead	0.030	mg/L	08/17/04	3010A/6010B
Mercury	<0.0005	mg/L	08/13/04	7470A
Selenium	<0.002	mg/L	08/17/04	3010A/6010B
Silver	<0.001	mg/L	08/17/04	3010A/6010B



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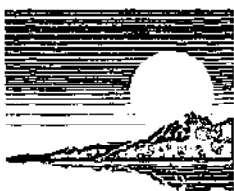
## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34613  
Sample Description: B-17/MW-4A 1.5  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/10/04  
Time Taken: 10:25  
Date Reported: 08/20/04

Analyte	Result	Units	Date Analyzed	Method
Solids, Total	84.17	%	08/16/04	160.3
pH @ 25°C (1:10)	8.13	units	08/13/04	9045C
<b>Total Metals</b>				
Arsenic	21.3	mg/kg	08/17/04	3050B/6010B
Barium	219	mg/kg	08/17/04	3050B/6010B
Cadmium	<0.1	mg/kg	08/17/04	3050B/6010B
Chromium	26.6	mg/kg	08/17/04	3050B/6010B
Lead	1,090	mg/kg	08/17/04	3050B/6010B
Mercury	0.24	mg/kg	08/13/04	7470A
Selenium	1.3	mg/kg	08/17/04	3050B/6010B
Silver	1.7	mg/kg	08/17/04	3050B/6010B
<b>TCLP Metals</b>				
Arsenic	0.008	mg/L	08/17/04	3010A/6010B
Barium	<1.0	mg/L	08/17/04	3010A/6010B
Cadmium	0.043	mg/L	08/17/04	3010A/6010B
Chromium	0.004	mg/L	08/17/04	3010A/6010B
Lead	0.619	mg/L	08/17/04	3010A/6010B
Mercury	<0.0005	mg/L	08/13/04	7470A
Selenium	<0.002	mg/L	08/17/04	3010A/6010B
Silver	0.002	mg/L	08/17/04	3010A/6010B





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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34616  
Sample Description: B-18A/0-2  
Lab File ID: 34608-30

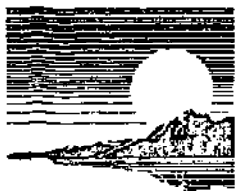
Date Received: 08/12/04  
Date Taken: 08/10/04  
Time Taken: 15:50  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
Solids, Total	97.02	%	

### Volatile Organic Compounds Method 5035A/8260B

Analysis Date: 08/17/04

Acetone	< 10.0	ug/kg	
Benzene	< 5.0	ug/kg	
Bromodichloromethane	< 5.0	ug/kg	
Bromoform	< 5.0	ug/kg	
Bromomethane	< 10.0	ug/kg	
2-Butanone	< 10.0	ug/kg	
Carbon disulfide	< 5.0	ug/kg	
Carbon tetrachloride	< 5.0	ug/kg	
Chlorobenzene	< 5.0	ug/kg	
Chlorodibromomethane	< 5.0	ug/kg	
Chloroethane	< 10.0	ug/kg	
Chloroform	< 5.0	ug/kg	
Chloromethane	< 10.0	ug/kg	
1,1-Dichloroethane	< 5.0	ug/kg	
1,2-Dichloroethane	< 5.0	ug/kg	
1,1-Dichloroethene	< 5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	ug/kg	
1,2-Dichloropropane	< 5.0	ug/kg	
cis-1,3-Dichloropropene	< 5.0	ug/kg	
trans-1,3-Dichloropropene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
2-Hexanone	< 10.0	ug/kg	
4-Methyl-2-pentanone	< 10.0	ug/kg	
Methylene chloride	< 5.0	ug/kg	
MTBE	< 5.0	ug/kg	
Styrene	< 5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	ug/kg	
Tetrachloroethene	< 5.0	ug/kg	
Toluene	< 5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	ug/kg	
Trichloroethene	< 5.0	ug/kg	
Vinyl Acetate	< 10.0	ug/kg	
Vinyl Chloride	< 10.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34615  
Sample Description: B-18B/6-8  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/10/04  
Time Taken: 15:46  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
Solids, Total	96.69	%	
<b>Volatile Organic Compounds Method 5035A/8260B</b>			
Analysis Date:	08/17/04		
Acetone	< 10.0	ug/kg	
Benzene	< 5.0	ug/kg	
Bromodichloromethane	< 5.0	ug/kg	
Bromoform	< 5.0	ug/kg	
Bromomethane	< 10.0	ug/kg	
2-Butanone	< 10.0	ug/kg	
Carbon disulfide	< 5.0	ug/kg	
Carbon tetrachloride	< 5.0	ug/kg	
Chlorobenzene	< 5.0	ug/kg	
Chlorodibromomethane	< 5.0	ug/kg	
Chloroethane	< 10.0	ug/kg	
Chloroform	< 5.0	ug/kg	
Chloromethane	< 10.0	ug/kg	
1,1-Dichloroethane	< 5.0	ug/kg	
1,2-Dichloroethane	< 5.0	ug/kg	
1,1-Dichloroethene	< 5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	ug/kg	
1,2-Dichloropropane	< 5.0	ug/kg	
cis-1,3-Dichloropropene	< 5.0	ug/kg	
trans-1,3-Dichloropropene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
2-Hexanone	< 10.0	ug/kg	
4-Methyl-2-pentanone	< 10.0	ug/kg	
Methylene chloride	< 5.0	ug/kg	
MTBE	< 5.0	ug/kg	
Styrene	< 5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	ug/kg	
Tetrachloroethene	< 5.0	ug/kg	
Toluene	< 5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	ug/kg	
Trichloroethene	< 5.0	ug/kg	
Vinyl Acetate	< 10.0	ug/kg	
Vinyl Chloride	< 10.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34617  
Sample Description: B-19A/0-2  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/10/04  
Time Taken: 15:55  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
Solids, Total	94.34	%	

### Volatile Organic Compounds Method 5035A/8260B

Analysis Date: 08/18/04

Acetone	< 10.0	ug/kg	
Benzene	< 5.0	ug/kg	
Bromodichloromethane	< 5.0	ug/kg	
Bromoform	< 5.0	ug/kg	
Bromomethane	< 10.0	ug/kg	
2-Butanone	< 10.0	ug/kg	
Carbon disulfide	< 5.0	ug/kg	
Carbon tetrachloride	< 5.0	ug/kg	
Chlorobenzene	< 5.0	ug/kg	
Chlorodibromomethane	< 5.0	ug/kg	
Chloroethane	< 10.0	ug/kg	
Chloroform	< 5.0	ug/kg	
Chloromethane	< 10.0	ug/kg	
1,1-Dichloroethane	< 5.0	ug/kg	
1,2-Dichloroethane	< 5.0	ug/kg	
1,1-Dichloroethene	< 5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	ug/kg	
1,2-Dichloropropane	< 5.0	ug/kg	
cis-1,3-Dichloropropene	< 5.0	ug/kg	
trans-1,3-Dichloropropene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
2-Hexanone	< 10.0	ug/kg	
4-Methyl-2-pentanone	< 10.0	ug/kg	
Methylene chloride	< 5.0	ug/kg	
MTBE	< 5.0	ug/kg	
Styrene	< 5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	ug/kg	
Tetrachloroethene	< 5.0	ug/kg	
Toluene	< 5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	ug/kg	
Trichloroethene	< 5.0	ug/kg	
Vinyl Acetate	< 10.0	ug/kg	
Vinyl Chloride	< 10.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34618  
Sample Description: B-19B/4-6  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/10/04  
Time Taken: 16:00  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
Solids, Total	97.34	%	

### Volatile Organic Compounds Method 5035A/8260B

Analysis Date: 08/17/04

Acetone	< 10.0	ug/kg	
Benzene	< 5.0	ug/kg	
Bromodichloromethane	< 5.0	ug/kg	
Bromoform	< 5.0	ug/kg	
Bromomethane	< 10.0	ug/kg	
2-Butanone	< 10.0	ug/kg	
Carbon disulfide	< 5.0	ug/kg	
Carbon tetrachloride	< 5.0	ug/kg	
Chlorobenzene	< 5.0	ug/kg	
Chlorodibromomethane	< 5.0	ug/kg	
Chloroethane	< 10.0	ug/kg	
Chloroform	< 5.0	ug/kg	
Chloromethane	< 10.0	ug/kg	
1,1-Dichloroethane	< 5.0	ug/kg	
1,2-Dichloroethane	< 5.0	ug/kg	
1,1-Dichloroethene	< 5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	ug/kg	
1,2-Dichloropropane	< 5.0	ug/kg	
cis-1,3-Dichloropropene	< 5.0	ug/kg	
trans-1,3-Dichloropropene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
2-Hexanone	< 10.0	ug/kg	
4-Methyl-2-pentanone	< 10.0	ug/kg	
Methylene chloride	< 5.0	ug/kg	
MTBE	< 5.0	ug/kg	
Styrene	< 5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	ug/kg	
Tetrachloroethene	< 5.0	ug/kg	
Toluene	< 5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	ug/kg	
Trichloroethene	< 5.0	ug/kg	
Vinyl Acetate	< 10.0	ug/kg	
Vinyl Chloride	< 10.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34619  
Sample Description: B-20A/0-2  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/10/04  
Time Taken: 16:05  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
Solids, Total	86.19	%	
<b>Volatile Organic Compounds Method 5035A/8260B</b>			
Analysis Date:	08/18/04		
Acetone	< 10.0	ug/kg	
Benzene	< 5.0	ug/kg	
Bromodichloromethane	< 5.0	ug/kg	
Bromoform	< 5.0	ug/kg	
Bromomethane	< 10.0	ug/kg	
2-Butanone	< 10.0	ug/kg	
Carbon disulfide	< 5.0	ug/kg	
Carbon tetrachloride	< 5.0	ug/kg	
Chlorobenzene	< 5.0	ug/kg	
Chlorodibromomethane	< 5.0	ug/kg	
Chloroethane	< 10.0	ug/kg	
Chloroform	< 5.0	ug/kg	
Chloromethane	< 10.0	ug/kg	
1,1-Dichloroethane	< 5.0	ug/kg	
1,2-Dichloroethane	< 5.0	ug/kg	
1,1-Dichloroethene	< 5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	ug/kg	
1,2-Dichloropropane	< 5.0	ug/kg	
cis-1,3-Dichloropropene	< 5.0	ug/kg	
trans-1,3-Dichloropropene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
2-Hexanone	< 10.0	ug/kg	
4-Methyl-2-pentanone	< 10.0	ug/kg	
Methylene chloride	< 5.0	ug/kg	
MTBE	< 5.0	ug/kg	
Styrene	< 5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	ug/kg	
Tetrachloroethene	< 5.0	ug/kg	
Toluene	< 5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	ug/kg	
Trichloroethene	< 5.0	ug/kg	
Vinyl Acetate	< 10.0	ug/kg	
Vinyl Chloride	< 10.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34620  
Sample Description: B-20B/2-4  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/10/04  
Time Taken: 16:10  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
Solids, Total	84.09	%	
<b>Volatile Organic Compounds Method 5035A/8260B</b>			
Analysis Date:	08/18/04		
Acetone	< 10.0	ug/kg	
Benzene	< 5.0	ug/kg	
Bromodichloromethane	< 5.0	ug/kg	
Bromoform	< 5.0	ug/kg	
Bromomethane	< 10.0	ug/kg	
2-Butanone	< 10.0	ug/kg	
Carbon disulfide	< 5.0	ug/kg	
Carbon tetrachloride	< 5.0	ug/kg	
Chlorobenzene	< 5.0	ug/kg	
Chlorodibromomethane	< 5.0	ug/kg	
Chloroethane	< 10.0	ug/kg	
Chloroform	< 5.0	ug/kg	
Chloromethane	< 10.0	ug/kg	
1,1-Dichloroethane	< 5.0	ug/kg	
1,2-Dichloroethane	< 5.0	ug/kg	
1,1-Dichloroethene	< 5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	ug/kg	
1,2-Dichloropropane	< 5.0	ug/kg	
cis-1,3-Dichloropropene	< 5.0	ug/kg	
trans-1,3-Dichloropropene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
2-Hexanone	< 10.0	ug/kg	
4-Methyl-2-pentanone	< 10.0	ug/kg	
Methylene chloride	< 5.0	ug/kg	
MTBE	< 5.0	ug/kg	
Styrene	< 5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	ug/kg	
Tetrachloroethene	< 5.0	ug/kg	
Toluene	< 5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	ug/kg	
Trichloroethene	< 5.0	ug/kg	
Vinyl Acetate	< 10.0	ug/kg	
Vinyl Chloride	< 10.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34623  
Sample Description: B-21/MW-6A  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/11/04  
Time Taken: 8:40  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
Solids, Total	79.39	%	

### Volatile Organic Compounds Method 5035A/8260B

Analysis Date: 08/18/04

Acetone	< 10.0	ug/kg	
Benzene	< 5.0	ug/kg	
Bromodichloromethane	< 5.0	ug/kg	
Bromoform	< 5.0	ug/kg	
Bromomethane	< 10.0	ug/kg	
2-Butanone	< 10.0	ug/kg	
Carbon disulfide	< 5.0	ug/kg	
Carbon tetrachloride	< 5.0	ug/kg	
Chlorobenzene	< 5.0	ug/kg	
Chlorodibromomethane	< 5.0	ug/kg	
Chloroethane	< 10.0	ug/kg	
Chloroform	< 5.0	ug/kg	
Chloromethane	< 10.0	ug/kg	
1,1-Dichloroethane	< 5.0	ug/kg	
1,2-Dichloroethane	< 5.0	ug/kg	
1,1-Dichloroethene	< 5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	ug/kg	
1,2-Dichloropropane	< 5.0	ug/kg	
cis-1,3-Dichloropropene	< 5.0	ug/kg	
trans-1,3-Dichloropropene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
2-Hexanone	< 10.0	ug/kg	
4-Methyl-2-pentanone	< 10.0	ug/kg	
Methylene chloride	< 5.0	ug/kg	
MTBE	< 5.0	ug/kg	
Styrene	< 5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	ug/kg	
Tetrachloroethene	< 5.0	ug/kg	
Toluene	< 5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	ug/kg	
Trichloroethene	< 5.0	ug/kg	
Vinyl Acetate	< 10.0	ug/kg	
Vinyl Chloride	< 10.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34625  
Sample Description: B-22A/4-6  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/11/04  
Time Taken: 11:25  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
<b>Polynuclear Aromatic Compounds Method 3540C/8270C</b>			
Preparation Date:	08/16/04		
Analysis Date:	08/18/04		
Naphthalene	< 25	ug/kg	
Acenaphthylene	< 50	ug/kg	
Acenaphthene	< 50	ug/kg	
Fluorene	< 50	ug/kg	
Phenanthrene	51	ug/kg	
Anthracene	< 50	ug/kg	
Fluoranthene	< 50	ug/kg	
Pyrene	< 50	ug/kg	
Benzo[a]anthracene	< 8.7	ug/kg	
Chrysene	< 50	ug/kg	
Benzo[b]fluoranthene	< 11	ug/kg	
Benzo[k]fluoranthene	< 11	ug/kg	
Benzo[a]pyrene	< 15	ug/kg	
Indeno[1,2,3-cd]pyrene	< 29	ug/kg	
Dibenz[a,h]anthracene	< 20	ug/kg	
Benzo[g,h,i]perylene	< 50	ug/kg	





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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34626  
Sample Description: B-23A/0-2  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/11/04  
Time Taken: 11:30  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
<b>Polynuclear Aromatic Compounds Method 3540C/8270C</b>			
Preparation Date:	08/16/04		
Analysis Date:	08/19/04		
Naphthalene	< 25	ug/kg	
Acenaphthylene	< 50	ug/kg	
Acenaphthene	< 50	ug/kg	
Fluorene	< 50	ug/kg	
Phenanthrene	< 50	ug/kg	
Anthracene	< 50	ug/kg	
Fluoranthene	< 50	ug/kg	
Pyrene	< 50	ug/kg	
Benzo[a]anthracene	< 8.7	ug/kg	
Chrysene	< 50	ug/kg	
Benzo[b]fluoranthene	< 11	ug/kg	
Benzo[k]fluoranthene	< 11	ug/kg	
Benzo[a]pyrene	< 15	ug/kg	
Indeno[1,2,3-cd]pyrene	< 29	ug/kg	
Dibenz[a,h]anthracene	< 20	ug/kg	
Benzo[g,h,i]perylene	< 50	ug/kg	



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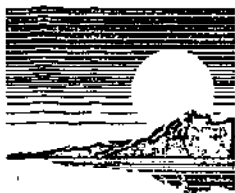
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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34627  
Sample Description: B-23B/8-10  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/11/04  
Time Taken: 11:35  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
<b>Polynuclear Aromatic Compounds Method 3540C/8270C</b>			
Preparation Date:	08/16/04		
Analysis Date:	08/19/04		
Naphthalene	< 25	ug/kg	
Acenaphthylene	< 50	ug/kg	
Acenaphthene	< 50	ug/kg	
Fluorene	< 50	ug/kg	
Phenanthrene	< 50	ug/kg	
Anthracene	< 50	ug/kg	
Fluoranthene	< 50	ug/kg	
Pyrene	< 50	ug/kg	
Benzo[a]anthracene	< 8.7	ug/kg	
Chrysene	< 50	ug/kg	
Benzo[b]fluoranthene	< 11	ug/kg	
Benzo[k]fluoranthene	< 11	ug/kg	
Benzo[a]pyrene	< 15	ug/kg	
Indeno[1,2,3-cd]pyrene	< 29	ug/kg	
Dibenz[a,h]anthracene	< 20	ug/kg	
Benzo[g,h,i]perylene	< 50	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34621  
Sample Description: B-24A/4-6  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/11/04  
Time Taken: 8:27  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
<b>Polynuclear Aromatic Compounds Method 3540C/8270C</b>			
Preparation Date:	08/16/04		
Analysis Date:	08/18/04		
Naphthalene	43	ug/kg	
Acenaphthylene	< 50	ug/kg	
Acenaphthene	< 50	ug/kg	
Fluorene	< 50	ug/kg	
Phenanthrene	< 50	ug/kg	
Anthracene	< 50	ug/kg	
Fluoranthene	< 50	ug/kg	
Pyrene	< 50	ug/kg	
Benzo[a]anthracene	< 8.7	ug/kg	
Chrysene	< 50	ug/kg	
Benzo[b]fluoranthene	< 11	ug/kg	
Benzo[k]fluoranthene	< 11	ug/kg	
Benzo[a]pyrene	< 15	ug/kg	
Indeno[1,2,3-cd]pyrene	< 29	ug/kg	
Dibenz[a,h]anthracene	< 20	ug/kg	
Benzo[g,h,i]perylene	< 50	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34622  
Sample Description: B-24B/6-8  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/11/04  
Time Taken: 8:33  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
<b>Polynuclear Aromatic Compounds Method 3540C/8270C</b>			
Preparation Date:	08/16/04		
Analysis Date:	08/18/04		
Naphthalene	< 25	ug/kg	
Acenaphthylene	< 50	ug/kg	
Acenaphthene	< 50	ug/kg	
Fluorene	< 50	ug/kg	
Phenanthrene	< 50	ug/kg	
Anthracene	< 50	ug/kg	
Fluoranthene	< 50	ug/kg	
Pyrene	< 50	ug/kg	
Benzo[a]anthracene	< 8.7	ug/kg	
Chrysene	< 50	ug/kg	
Benzo[b]fluoranthene	< 11	ug/kg	
Benzo[k]fluoranthene	< 11	ug/kg	
Benzo[a]pyrene	< 15	ug/kg	
Indeno[1,2,3-cd]pyrene	< 29	ug/kg	
Dibenz[a,h]anthracene	< 20	ug/kg	
Benzo[g,h,i]perylene	< 50	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34628  
Sample Description: B-25A/2-4  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/10/04  
Time Taken: 14:25  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
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### Polynuclear Aromatic Compounds Method 3540C/8270C

Preparation Date: 08/16/04

Analysis Date: 08/19/04

Naphthalene	3,530	ug/kg	
Acenaphthylene	3,820	ug/kg	
Acenaphthene	2,340	ug/kg	
Fluorene	6,250	ug/kg	
Phenanthrene	78,800	ug/kg	
Anthracene	8,890	ug/kg	
Fluoranthene	71,600	ug/kg	
Pyrene	73,700	ug/kg	
Benzo[a]anthracene	17,000	ug/kg	
Chrysene	15,000	ug/kg	
Benzo[b]fluoranthene	15,600	ug/kg	
Benzo[k]fluoranthene	9,540	ug/kg	
Benzo[a]pyrene	17,100	ug/kg	
Indeno[1,2,3-cd]pyrene	8,230	ug/kg	
Dibenz[a,h]anthracene	2,330	ug/kg	
Benzo[g,h,i]perylene	6,210	ug/kg	

Analyte	Result	Units	Date Analyzed	Method
pH @ 25°C (1:10)	8.73	units	08/13/04	.9045C
<b>Total Metals</b>				
Arsenic	17.2	mg/kg	08/17/04	3050B/6010B
Barium	450	mg/kg	08/17/04	3050B/6010B
Cadmium	1.7	mg/kg	08/17/04	3050B/6010B
Chromium	29.1	mg/kg	08/17/04	3050B/6010B
Lead	852	mg/kg	08/17/04	3050B/6010B
Mercury	1.20	mg/kg	08/16/04	7470A
Selenium	<0.2	mg/kg	08/17/04	3050B/6010B
Silver	0.4	mg/kg	08/17/04	3050B/6010B
<b>TCLP Metals</b>				
Arsenic	0.007	mg/L	08/17/04	3010A/6010B
Barium	<1.0	mg/L	08/17/04	3010A/6010B
Cadmium	0.011	mg/L	08/17/04	3010A/6010B
Chromium	<0.001	mg/L	08/17/04	3010A/6010B
Lead	0.105	mg/L	08/17/04	3010A/6010B
Mercury	<0.0005	mg/L	08/13/04	7470A
Selenium	<0.002	mg/L	08/17/04	3010A/6010B
Silver	<0.001	mg/L	08/17/04	3010A/6010B



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 24629  
Sample Description: B-25B/6-8  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/10/04  
Time Taken: 14:32  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
<b>Polynuclear Aromatic Compounds Method 3540C/8270C</b>			
Preparation Date:	08/16/04		
Analysis Date:	08/19/04		
Naphthalene	766	ug/kg	
Acenaphthylene	533	ug/kg	
Acenaphthene	888	ug/kg	
Fluorene	1,010	ug/kg	
Phenanthrene	10,400	ug/kg	
Anthracene	2,580	ug/kg	
Fluoranthene	16,600	ug/kg	
Pyrene	15,400	ug/kg	
Benzo[a]anthracene	8,620	ug/kg	
Chrysene	8,050	ug/kg	
Benzo[b]fluoranthene	6,940	ug/kg	
Benzo[k]fluoranthene	6,870	ug/kg	
Benzo[a]pyrene	8,860	ug/kg	
Indeno[1,2,3-cd]pyrene	3,980	ug/kg	
Dibenz[a,h]anthracene	1,110	ug/kg	
Benzo[g,h,i]perylene	3,220	ug/kg	

Analyte	Result	Units	Date Analyzed	Method
pH @ 25°C (1:10)	8.35	units	08/13/04	9045C
<b>Total Metals</b>				
Arsenic	15.9	mg/kg	08/17/04	3050B/6010B
Barium	734	mg/kg	08/19/04	3050B/6010B
Cadmium	0.1	mg/kg	08/17/04	3050B/6010B
Chromium	36.8	mg/kg	08/17/04	3050B/6010B
Lead	818	mg/kg	08/17/04	3050B/6010B
Mercury	0.89	mg/kg	08/16/04	7470A
Selenium	0.4	mg/kg	08/17/04	3050B/6010B
Silver	0.4	mg/kg	08/17/04	3050B/6010B
<b>TCLP Metals</b>				
Arsenic	<0.002	mg/L	08/17/04	3010A/6010B
Barium	<1.0	mg/L	08/17/04	3010A/6010B
Cadmium	0.008	mg/L	08/17/04	3010A/6010B
Chromium	<0.001	mg/L	08/17/04	3010A/6010B
Lead	0.100	mg/L	08/17/04	3010A/6010B
Mercury	<0.0005	mg/L	08/13/04	7470A
Selenium	<0.002	mg/L	08/17/04	3010A/6010B
Silver	<0.001	mg/L	08/17/04	3010A/6010B



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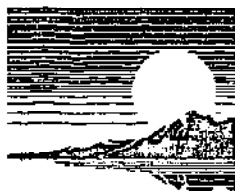
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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34630  
Sample Description: B-28.MW-5 2-4  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/10/04  
Time Taken: 15:55  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
Solids, Total	79.92	%	
<b>Volatile Organic Compounds Method 5035A/8260B</b>			
Analysis Date:	08/18/04		
Acetone	< 10.0	ug/kg	
Benzene	< 5.0	ug/kg	
Bromodichloromethane	< 5.0	ug/kg	
Bromoform	< 5.0	ug/kg	
Bromomethane	< 10.0	ug/kg	
2-Butanone	< 10.0	ug/kg	
Carbon disulfide	< 5.0	ug/kg	
Carbon tetrachloride	< 5.0	ug/kg	
Chlorobenzene	< 5.0	ug/kg	
Chlorodibromomethane	< 5.0	ug/kg	
Chloroethane	< 10.0	ug/kg	
Chloroform	< 5.0	ug/kg	
Chloromethane	< 10.0	ug/kg	
1,1-Dichloroethane	< 5.0	ug/kg	
1,2-Dichloroethane	< 5.0	ug/kg	
1,1-Dichloroethene	< 5.0	ug/kg	
cis-1,2-Dichloroethene	< 5.0	ug/kg	
trans-1,2-Dichloroethene	< 5.0	ug/kg	
1,2-Dichloropropane	< 5.0	ug/kg	
cis-1,3-Dichloropropene	< 5.0	ug/kg	
trans-1,3-Dichloropropene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
2-Hexanone	< 10.0	ug/kg	
4-Methyl-2-pentanone	< 10.0	ug/kg	
Methylene chloride	< 5.0	ug/kg	
MTBE	< 5.0	ug/kg	
Styrene	< 5.0	ug/kg	
1,1,2,2-Tetrachloroethane	< 5.0	ug/kg	
Tetrachloroethene	< 5.0	ug/kg	
Toluene	< 5.0	ug/kg	
1,1,1-Trichloroethane	< 5.0	ug/kg	
1,1,2-Trichloroethane	< 5.0	ug/kg	
Trichloroethene	< 5.0	ug/kg	
Vinyl Acetate	< 10.0	ug/kg	
Vinyl Chloride	< 10.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34624  
Sample Description: GW-22  
Lab File ID: 34608-30

Date Received: 08/12/04  
Date Taken: 08/11/04  
Time Taken: 11:15  
Date Reported: 08/20/04

Analyte	Result	Units	Flags
<b>Volatile Organic Compounds Method 5030B/8260B</b>			
Analysis Date:	08/17/04		
Acetone	< 10.0	ug/L	
Benzene	< 5.0	ug/L	
Bromodichloromethane	< 1.0	ug/L	
Bromoform	< 1.0	ug/L	
Bromomethane	< 5.0	ug/L	
2-Butanone	< 10.0	ug/L	
Carbon disulfide	< 5.0	ug/L	
Carbon tetrachloride	< 5.0	ug/L	
Chlorobenzene	< 5.0	ug/L	
Chlorodibromomethane	< 1.0	ug/L	
Chloroethane	< 10.0	ug/L	
Chloroform	< 1.0	ug/L	
Chloromethane	< 10.0	ug/L	
1,1-Dichloroethane	< 5.0	ug/L	
1,2-Dichloroethane	< 5.0	ug/L	
1,1-Dichloroethene	< 5.0	ug/L	
cis-1,2-Dichloroethene	< 5.0	ug/L	
trans-1,2-Dichloroethene	< 5.0	ug/L	
1,2-Dichloropropane	< 5.0	ug/L	
cis-1,3-Dichloropropene	< 1.0	ug/L	
trans-1,3-Dichloropropene	< 1.0	ug/L	
Ethyl benzene	< 5.0	ug/L	
2-Hexanone	< 10.0	ug/L	
4-Methyl-2-pentanone	< 10.0	ug/L	
Methylene chloride	< 5.0	ug/L	
MTBE	< 5.0	ug/L	
Styrene	< 5.0	ug/L	
1,1,2,2-Tetrachloroethane	< 5.0	ug/L	
Tetrachloroethene	< 5.0	ug/L	
Toluene	< 5.0	ug/L	
1,1,1-Trichloroethane	< 5.0	ug/L	
1,1,2-Trichloroethane	< 5.0	ug/L	
Trichloroethene	< 5.0	ug/L	
Vinyl Acetate	< 10.0	ug/L	
Vinyl Chloride	< 2.0	ug/L	
Xylenes (total)	< 5.0	ug/L	





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August 24, 2004

Ms. Marie Mueller  
**CLAYTON GROUP SERVICES INC.**  
3140 Finley Road  
Downers Grove, IL 60515

Project ID: 15-04183  
First Environmental File ID: 35275-77  
Date Received: August 10 and 13, 2004

Dear Ms. Mueller:

The above referenced samples were analyzed as per your request on August 19, 2004.

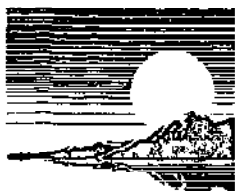
**PROJECT SUMMARY**

Analyses were performed in accordance with ASTM D2974-87

I thank you for the opportunity to be of service and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data, please contact me at (630) 778-1200.

Sincerely,

William H. Mottashed  
Project Manager



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Lab File ID: 35275-77

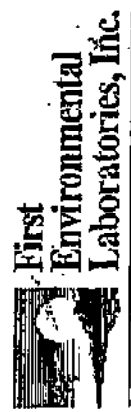
Date Received: 08/10/04  
Date Reported: 08/24/04

FOC Method D2974-87  
Date Analyzed: 08/23/04

<u>Lab Sample Number</u>	<u>Sample Description</u>	<u>Date &amp; Time Taken</u>	<u>FOC %</u>
35275	B-14/MW-2B 8	08/09/04 11:25	2.50
35276	B-8B/6-8	08/12/04 11:46	2.54
35277	B-4B/3	08/12/04 13:40	13.33

CHAIN OF CUSTODY RECORD

Page 1 of 2 pgs



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24 Hr. Pager (708) 569-7507  
E-mail: info@firstenv.com  
IEPA Certification # 100292

Company Name: Clayton Group Services  
Street Address: 3140 Finley Rd  
City: Downers Grove  
State: IL Zip: 60515  
Phone: 795-3200 Fax: 795-1130  
Send Report To: Melia Myeiller  
Sampled By: Dorian W. Lamsone

Matrix Codes: S = Soil W = Water O = Other			Analyses										Comments	Lab I.D.
Date/Time Taken	Sample Description	Matrix	VOC	BTX	PCRA Metals	PCRA	PH	PCRA	PCRA	PCRA	PCRA	PCRA		
8/12 0850	B-1A/2-4	S	X		X	X	X							
1110	GW-8	W		X										
1135	B-5A/4-6	S		X	X	X	X							
1142	B-8A/2-4	S		X	X	X	X							
1146	B-8B/6-8	S		X	X	X	X							
1300	B-4A/4.5	S		X	X	X	X							
1340	B-4B/3	S		X	X	X	X							
1355	B-6A/2	S		X	X	X	X							
1415	GW-6	W		X										
1525	B-7A/1-2	S		X	X	X	X							
8/13 0815	GW-3	W	X											
8/13 1020	GW-2	W												

Cooler Temperature: 5.6°C on ice  
Received within 6 hrs. of collection:

Notes and Special Instructions:

Relinquished By: [Signature] Date/Time: 8/13 1450 Received By: [Signature] Date/Time: 8/13 1641  
Relinquished By: [Signature] Date/Time: [Blank] Received By: [Signature] Date/Time: [Blank]



CHAIN OF CUSTODY RECORD

**First Environmental Laboratories, Inc.**  
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Naperville, Illinois 60563  
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24 Hr. Pager (708) 569-7507  
E-mail: info@firstenv.com  
IEPA Certification# 100292

Company Name: Clayton Group Services

Street Address: 3140 Finley Rd

City: Downers Grove State: IL Zip: 60515

Phone: 795-3200 Fax: 795-1130

Send Report To: Maria Mueller

Sampled By: Darren W. Lemons

Project I.D.: 15-04183  
P.O. #:

Analyses

Matrix Codes: S = Soil W = Water O = Other		Sample Description		Matrix	Analyses					Comments	Lab I.D.
Date/Time Taken					VOCs	PNAs	TCRP	PCRA	MTds		
8/10 1605	B-20A	0-2		S	X	X	X	X	X		34619
8/10 1610	B-20B	2-4		S	X	X	X	X	X		20
8/11 0735	B-24C	10-12		S	X	X				HOLD	
0827	B-24A	14-6		S	X	X					21
0833	B-24B	16-8		S	X	X					22
0840	B-21/MW-6A	2-4		S	X	X					23
1115	GW-22			W	X	X					24
1125	B-22A	14-6		S	X	X					25
1130	B-23A	0-2		S	X	X					26
1175	B-23B	8-10		S	X	X					27
1140	B-23C	12-15		S	X	X				HOLD	
1425	B-25A	2-4		S	X	X	X	X	X		28

WY 16

Cooler Temperature: \_\_\_\_\_ °C

Received within 6 hrs. of collection: \_\_\_\_\_

Notes and Special Instructions: \_\_\_\_\_

Relinquished By: Sam 12 Date/Time: 8/12 0600 Received By: Ry C Date/Time: 8/12/09 1030  
Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_



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August 24, 2004

Ms. Marie Mueller  
**CLAYTON GROUP SERVICES INC.**  
3140 Finley Road  
Downers Grove, IL 60515

Project ID: 15-04183  
First Environmental File ID: 34867-84  
Date Received: August 13, 2004

Dear Ms. Mueller:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

**PROJECT SUMMARY**

Analyses were performed in accordance with the methods found in the USEPA publication: Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3<sup>rd</sup> Edition, December 1996. Specific method references are listed on the Analytical Report.

Results for the soil samples have been expressed on a dry weight basis per method protocol.

All analyses were performed within established holding times, and all Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met. QA/QC documentation will remain on file for future reference.

I thank you for the opportunity to be of service and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data, please contact me at (630) 778-1200.

Sincerely,

William H. Mottashed  
Project Manager



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34867  
Sample Description: B-1A/2-4  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/12/04  
Time Taken: 8:50  
Date Reported: 08/24/04

Analyte	Result	Units	Date Analyzed	Method
pH @ 25°C (1:10)	11.60	units	08/19/04	9045C
Arsenic	2.8	mg/kg	08/20/04	3050B/6010B
Barium	62.4	mg/kg	08/20/04	3050B/6010B
Cadmium	0.8	mg/kg	08/20/04	3050B/6010B
Chromium	20.6	mg/kg	08/20/04	3050B/6010B
Lead	83.8	mg/kg	08/20/04	3050B/6010B
Mercury	0.14	mg/kg	08/18/04	7470A
Selenium	<0.2	mg/kg	08/20/04	3050B/6010B
Silver	10.8	mg/kg	08/20/04	3050B/6010B
<b>TCLP Metals</b>				
Arsenic	<0.002	mg/L	08/20/04	3010A/6010B
Barium	<1.0	mg/L	08/20/04	3010A/6010B
Cadmium	<0.001	mg/L	08/20/04	3010A/6010B
Chromium	0.194	mg/L	08/20/04	3010A/6010B
Lead	<0.002	mg/L	08/20/04	3010A/6010B
Mercury	<0.0005	mg/L	08/18/04	7470A
Selenium	0.004	mg/L	08/20/04	3010A/6010B
Silver	<0.001	mg/L	08/20/04	3010A/6010B



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34881  
Sample Description: B-2B/6-8  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/12/04  
Time Taken: 10:50  
Date Reported: 08/24/04

Analyte	Result	Units	Flags
Solids, Total	79.18	%	

**BTEX Method 5035A/8260B**

Analysis Date: 08/20/04

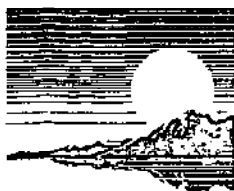
Benzene	< 2.0	ug/kg
Toluene	< 5.0	ug/kg
Ethyl benzene	< 5.0	ug/kg
Xylenes (total)	< 5.0	ug/kg

**Polynuclear Aromatic Compounds Method 3540C/8270C**

Preparation Date: 08/18/04

Analysis Date: 08/23/04

Naphthalene	< 25	ug/kg
Acenaphthylene	< 50	ug/kg
Acenaphthene	< 50	ug/kg
Fluorene	< 50	ug/kg
Phenanthrene	< 50	ug/kg
Anthracene	< 50	ug/kg
Fluoranthene	< 50	ug/kg
Pyrene	< 50	ug/kg
Benzo[a]anthracene	10	ug/kg
Chrysene	< 50	ug/kg
Benzo[b]fluoranthene	< 11	ug/kg
Benzo[k]fluoranthene	< 11	ug/kg
Benzo[a]pyrene	< 15	ug/kg
Indeno[1,2,3-cd]pyrene	< 29	ug/kg
Dibenz[a,h]anthracene	< 20	ug/kg
Benzo[g,h,i]perylene	< 50	ug/kg



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34879  
Sample Description: B-3A/1-2  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/12/04  
Time Taken: 10:35  
Date Reported: 08/24/04

Analyte	Result	Units	Flags
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### Polynuclear Aromatic Compounds Method 3540C/8270C

Preparation Date: 08/18/04

Analysis Date: 08/21/04

Naphthalene	< 25	ug/kg	
Acenaphthylene	< 50	ug/kg	
Acenaphthene	< 50	ug/kg	
Fluorene	< 50	ug/kg	
Phenanthrene	410	ug/kg	
Anthracene	95	ug/kg	
Fluoranthene	646	ug/kg	
Pyrene	628	ug/kg	
Benzo[a]anthracene	319	ug/kg	
Chrysene	300	ug/kg	
Benzo[b]fluoranthene	252	ug/kg	
Benzo[k]fluoranthene	255	ug/kg	
Benzo[a]pyrene	317	ug/kg	
Indeno[1,2,3-cd]pyrene	173	ug/kg	
Dibenz[a,h]anthracene	55	ug/kg	
Benzo[g,h,i]perylene	144	ug/kg	

Analyte	Result	Units	Date Analyzed	Method
pH @ 25°C (1:10)	9.19	units	08/19/04	9045C
Arsenic	27.5	mg/kg	08/20/04	3050B/6010B
Barium	338	mg/kg	08/20/04	3050B/6010B
Cadmium	<0.1	mg/kg	08/20/04	3050B/6010B
Chromium	27.7	mg/kg	08/20/04	3050B/6010B
Lead	153	mg/kg	08/20/04	3050B/6010B
Mercury	0.06	mg/kg	08/17/04	7470A
Selenium	2.8	mg/kg	08/20/04	3050B/6010B
Silver	0.5	mg/kg	08/20/04	3050B/6010B

### TCLP Metals

Arsenic	<0.002	mg/L	08/20/04	3010A/6010B
Barium	<1.0	mg/L	08/20/04	3010A/6010B
Cadmium	0.006	mg/L	08/20/04	3010A/6010B
Chromium	0.001	mg/L	08/20/04	3010A/6010B
Lead	0.188	mg/L	08/20/04	3010A/6010B
Mercury	<0.0005	mg/L	08/18/04	7470A
Selenium	<0.002	mg/L	08/20/04	3010A/6010B
Silver	<0.001	mg/L	08/20/04	3010A/6010B





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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34872  
Sample Description: B-4A/1.5  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/12/04  
Time Taken: 13:00  
Date Reported: 08/24/04

Analyte	Result	Units	Date Analyzed	Method
pH @ 25°C (1:10)	10.22	units	08/19/04	9045C
Arsenic	21.3	mg/kg	08/20/04	3050B/6010B
Barium	556	mg/kg	08/20/04	3050B/6010B
Cadmium	22.5	mg/kg	08/20/04	3050B/6010B
Chromium	94.6	mg/kg	08/20/04	3050B/6010B
Lead	10,200	mg/kg	08/23/04	3050B/6010B
Mercury	2.07	mg/kg	08/18/04	7470A
Selenium	<0.2	mg/kg	08/20/04	3050B/6010B
Silver	8.8	mg/kg	08/20/04	3050B/6010B
<b>TCLP Metals</b>				
Arsenic	<0.002	mg/L	08/20/04	3010A/6010B
Barium	<1.0	mg/L	08/20/04	3010A/6010B
Cadmium	0.314	mg/L	08/20/04	3010A/6010B
Chromium	0.002	mg/L	08/20/04	3010A/6010B
Lead	21.8	mg/L	08/20/04	3010A/6010B
Mercury	<0.0005	mg/L	08/18/04	7470A
Selenium	<0.002	mg/L	08/20/04	3010A/6010B
Silver	<0.001	mg/L	08/20/04	3010A/6010B



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34873  
Sample Description: B-4B/3  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/12/04  
Time Taken: 13:40  
Date Reported: 08/24/04

Analyte	Result	Units	Date Analyzed	Method
pH @ 25°C (1:10)	8.44	units	08/19/04	9045C
Arsenic	92.1	mg/kg	08/20/04	3050B/6010B
Barium	60.9	mg/kg	08/20/04	3050B/6010B
Cadmium	24.3	mg/kg	08/20/04	3050B/6010B
Chromium	126	mg/kg	08/20/04	3050B/6010B
Lead	8,940	mg/kg	08/20/04	3050B/6010B
Mercury	17.3	mg/kg	08/17/04	7470A
Selenium	12.9	mg/kg	08/20/04	3050B/6010B
Silver	8.6	mg/kg	08/20/04	3050B/6010B
<b>TCLP Metals</b>				
Arsenic	0.024	mg/L	08/20/04	3010A/6010B
Barium	1.1	mg/L	08/20/04	3010A/6010B
Cadmium	0.506	mg/L	08/20/04	3010A/6010B
Chromium	0.003	mg/L	08/20/04	3010A/6010B
Lead	96.1	mg/L	08/23/04	3010A/6010B
Mercury	<0.0005	mg/L	08/18/04	7470A
Selenium	<0.002	mg/L	08/20/04	3010A/6010B
Silver	<0.001	mg/L	08/20/04	3010A/6010B



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34869  
Sample Description: B-5A/4-6  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/12/04  
Time Taken: 11:35  
Date Reported: 08/24/04

Analyte	Result	Units	Date Analyzed	Method
pH @ 25°C (1:10)	8.99	units	08/19/04	9045C
Arsenic	79.6	mg/kg	08/20/04	3050B/6010B
Barium	432	mg/kg	08/20/04	3050B/6010B
Cadmium	3.1	mg/kg	08/20/04	3050B/6010B
Chromium	22.6	mg/kg	08/20/04	3050B/6010B
Lead	1,010	mg/kg	08/20/04	3050B/6010B
Mercury	0.36	mg/kg	08/17/04	7470A
Selenium	6.3	mg/kg	08/20/04	3050B/6010B
Silver	0.4	mg/kg	08/20/04	3050B/6010B
<b>TCLP Metals</b>				
Arsenic	<0.002	mg/L	08/20/04	3010A/6010B
Barium	<1.0	mg/L	08/20/04	3010A/6010B
Cadmium	0.042	mg/L	08/20/04	3010A/6010B
Chromium	0.002	mg/L	08/20/04	3010A/6010B
Lead	0.787	mg/L	08/20/04	3010A/6010B
Mercury	<0.0005	mg/L	08/18/04	7470A
Selenium	<0.002	mg/L	08/20/04	3010A/6010B
Silver	<0.001	mg/L	08/20/04	3010A/6010B



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34874  
Sample Description: B-6A/2  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/12/04  
Time Taken: 13:55  
Date Reported: 08/24/04

Analyte	Result	Units	Date Analyzed	Method
pH @ 25°C (1:10)	8.12	units	08/19/04	9045C
Arsenic	42.6	mg/kg	08/20/04	3050B/6010B
Barium	350	mg/kg	08/20/04	3050B/6010B
Cadmium	107	mg/kg	08/20/04	3050B/6010B
Chromium	91.0	mg/kg	08/20/04	3050B/6010B
Lead	34,000	mg/kg	08/23/04	3050B/6010B
Mercury	1.10	mg/kg	08/17/04	7470A
Selenium	0.9	mg/kg	08/20/04	3050B/6010B
Silver	51.4	mg/kg	08/20/04	3050B/6010B
<b>TCLP Metals</b>				
Arsenic	0.003	mg/L	08/20/04	3010A/6010B
Barium	<1.0	mg/L	08/20/04	3010A/6010B
Cadmium	0.529	mg/L	08/20/04	3010A/6010B
Chromium	<0.001	mg/L	08/20/04	3010A/6010B
Lead	2.53	mg/L	08/20/04	3010A/6010B
Mercury	<0.0005	mg/L	08/18/04	7470A
Selenium	<0.002	mg/L	08/20/04	3010A/6010B
Silver	<0.001	mg/L	08/20/04	3010A/6010B



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34876  
Sample Description: B-7A/1-2  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/12/04  
Time Taken: 15:25  
Date Reported: 08/24/04

Analyte	Result	Units	Date Analyzed	Method
pH @ 25°C (1:10)	9.04	units	08/19/04	9045C
Arsenic	16.5	mg/kg	08/20/04	3050B/6010B
Barium	1,490	mg/kg	08/23/04	3050B/6010B
Cadmium	16.8	mg/kg	08/20/04	3050B/6010B
Chromium	82.1	mg/kg	08/20/04	3050B/6010B
Lead	8,790	mg/kg	08/23/04	3050B/6010B
Mercury	0.21	mg/kg	08/17/04	7470A
Selenium	1.5	mg/kg	08/20/04	3050B/6010B
Silver	2.0	mg/kg	08/20/04	3050B/6010B
<b>TCLP Metals</b>				
Arsenic	<0.002	mg/L	08/20/04	3010A/6010B
Barium	2.4	mg/L	08/20/04	3010A/6010B
Cadmium	0.348	mg/L	08/20/04	3010A/6010B
Chromium	0.003	mg/L	08/20/04	3010A/6010B
Lead	21.8	mg/L	08/20/04	3010A/6010B
Mercury	<0.0005	mg/L	08/18/04	7470A
Selenium	<0.002	mg/L	08/20/04	3010A/6010B
Silver	<0.001	mg/L	08/20/04	3010A/6010B



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34871  
Sample Description: B-8B/6-8  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/12/04  
Time Taken: 11:46  
Date Reported: 08/24/04

Analyte	Result	Units	Flags
Solids, Total	83.92	%	

### BTEX Method 5035A/8260B

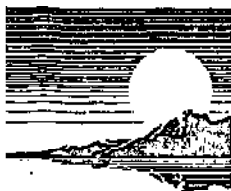
Analysis Date: 08/20/04

Benzene	< 2.0	ug/kg
Toluene	< 5.0	ug/kg
Ethyl benzene	< 5.0	ug/kg
Xylenes (total)	< 5.0	ug/kg

Analyte	Result	Units	Date Analyzed	Method
Cyanide	<0.10	mg/kg	08/23/04	9010B/9014
pH @ 25°C (1:10)	8.80	units	08/19/04	9045C
Arsenic	7.8	mg/kg	08/20/04	3050B/6010B
Barium	34.1	mg/kg	08/20/04	3050B/6010B
Cadmium	<0.1	mg/kg	08/20/04	3050B/6010B
Chromium	16.3	mg/kg	08/20/04	3050B/6010B
Lead	14.2	mg/kg	08/20/04	3050B/6010B
Mercury	<0.05	mg/kg	08/17/04	7470A
Selenium	<0.2	mg/kg	08/20/04	3050B/6010B
Silver	<0.1	mg/kg	08/20/04	3050B/6010B

### TCLP Metals

Arsenic	<0.002	mg/L	08/20/04	3010A/6010B
Barium	<1.0	mg/L	08/20/04	3010A/6010B
Cadmium	0.002	mg/L	08/20/04	3010A/6010B
Chromium	0.002	mg/L	08/20/04	3010A/6010B
Lead	0.009	mg/L	08/20/04	3010A/6010B
Mercury	<0.0005	mg/L	08/18/04	7470A
Selenium	<0.002	mg/L	08/20/04	3010A/6010B
Silver	0.001	mg/L	08/20/04	3010A/6010B



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34883  
Sample Description: B-9B/8-10  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/12/04  
Time Taken: 12:10  
Date Reported: 08/24/04

Analyte	Result	Units	Flags
Solids, Total	81.81	%	
<b>BTEX Method 5035A/8260B</b>			
Analysis Date:	08/19/04		
Benzene	< 2.0	ug/kg	
Toluene	< 5.0	ug/kg	
Ethyl benzene	< 5.0	ug/kg	
Xylenes (total)	< 5.0	ug/kg	



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34878  
Sample Description: GW-2  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/13/04  
Time Taken: 10:20  
Date Reported: 08/24/04

Analyte	Result	Units	Flags
<b>BTEX Method 5030B/8260B</b>			
Analysis Date:	08/19/04		
Benzene	< 5.0	ug/L	
Toluene	< 5.0	ug/L	
Ethyl benzene	< 5.0	ug/L	
Xylenes (total)	< 5.0	ug/L	
<b>Polynuclear Aromatic Compounds Method 3510C/8270C</b>			
Preparation Date	08/17/04		
Analysis Date:	08/20/04		
Naphthalene	< 10	ug/L	
Acenaphthylene	< 10	ug/L	
Acenaphthene	< 10	ug/L	
Fluorene	< 2	ug/L	
Phenanthrene	< 5	ug/L	
Anthracene	< 5	ug/L	
Fluoranthene	3	ug/L	
Pyrene	3	ug/L	
Benzo[a]anthracene	1.5	ug/L	
Chrysene	1.8	ug/L	
Benzo[b]fluoranthene	1.4	ug/L	
Benzo[k]fluoranthene	1.3	ug/L	
Benzo[a]pyrene	1.8	ug/L	
Indeno[1,2,3-cd]pyrene	1.2	ug/L	
Dibenz[a,h]anthracene	0.3	ug/L	
Benzo[g,h,i]perylene	1.2	ug/L	





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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34877  
Sample Description: GW-3  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/13/04  
Time Taken: 8:15  
Date Reported: 08/24/04

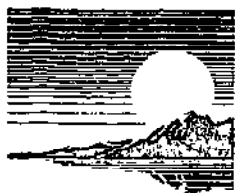
Analyte	Result	Units	Flags
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### Polynuclear Aromatic Compounds Method 3510C/8270C

Preparation Date 08/17/04  
Analysis Date: 08/20/04

Naphthalene	< 10	ug/L	
Acenaphthylene	< 10	ug/L	
Acenaphthene	< 10	ug/L	
Fluorene	< 2	ug/L	
Phenanthrene	< 5	ug/L	
Anthracene	< 5	ug/L	
Fluoranthene	< 2	ug/L	
Pyrene	< 2	ug/L	
Benzo[a]anthracene	0.50	ug/L	
Chrysene	< 1.5	ug/L	
Benzo[b]fluoranthene	0.46	ug/L	
Benzo[k]fluoranthene	0.41	ug/L	
Benzo[a]pyrene	0.6	ug/L	
Indeno[1,2,3-cd]pyrene	0.4	ug/L	
Dibenz[a,h]anthracene	< 0.3	ug/L	
Benzo[g,h,i]perylene	< 0.4	ug/L	

Analyte	Result	Units	Date Analyzed	Method
Arsenic	0.016	mg/L	08/19/04	3010A/6010B
Barium	0.105	mg/L	08/19/04	3010A/6010B
Cadmium	<0.001	mg/L	08/19/04	3010A/6010B
Chromium	0.002	mg/L	08/19/04	3010A/6010B
Lead	0.178	mg/L	08/19/04	3010A/6010B
Mercury	<0.0005	mg/L	08/17/04	7470A
Selenium	<0.002	mg/L	08/19/04	3010A/6010B
Silver	<0.001	mg/L	08/19/04	3010A/6010B



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**Analytical Report**

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183  
Sample Number: 34875  
Sample Description: GW-6  
Lab File ID: 34867-84

Date Received: 08/13/04  
Date Taken: 08/12/04  
Time Taken: 14:15  
Date Reported: 08/24/04

Analyte	Result	Units	Date Analyzed	Method
Arsenic	0.008	mg/L	08/19/04	3010A/6010B
Barium	0.199	mg/L	08/19/04	3010A/6010B
Cadmium	<0.001	mg/L	08/19/04	3010A/6010B
Chromium	<0.001	mg/L	08/19/04	3010A/6010B
Lead	0.012	mg/L	08/19/04	3010A/6010B
Mercury	<0.0005	mg/L	08/17/04	7470A
Selenium	<0.002	mg/L	08/19/04	3010A/6010B
Silver	<0.001	mg/L	08/19/04	3010A/6010B



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 E-mail: info@firstenv.com  
 IEPA Certification# 100292

**CHAIN OF CUSTODY RECORD**

Company Name: Clayton Group Services  
 Street Address: 3140 Finley Rd  
 City: Downers Grove State: IL Zip: 60515  
 Phone: 795-3200 Fax: 795-1130  
 Send Report To: Melie Mueller  
 Sampled By: Debra W. Lonsma

Matrix Codes: S = Soil W = Water O = Other		Analyses										Comments	Lab I.D.
Date/Time Taken	Sample Description	Matrix	VOC	BTEX	PCRA Metals	PCRA	PCP & PCRA	PH	Total Cyanide	PCBs			
8/12 0850	B-1A/2-4	S	X		X	X	X						44807
1110	GW-8	W		X	X	X	X					No Bottle used	468
1135	B-5A/4-6	S		X	X	X	X						469
1142	B-8A/2-4	S		X	X	X	X						470
1146	B-8B/6-8	S		X	X	X	X						471
1300	B-4A/1-5	S			X	X	X						472
1340	B-4B/3	S			X	X	X						473
1355	B-6A/2	S		X	X	X	X						474
1415	GW-6	W		X	X	X	X						475
1525	B-7A/1-2	S		X	X	X	X						476
8/13 0815	GW-3	W	X		X	X	X						477
8/13 1020	GW-2	W	X		X	X	X						478

Cooler Temperature: 6.0°C on ice  
 Received within 6 hrs. of collection: \_\_\_\_\_

Notes and Special Instructions: \_\_\_\_\_

Relinquished By: Donna Date/Time: 8/13 1450 Received By: Debra W. Lonsma Date/Time: 8/13 1641450  
 Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_



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August 27, 2004

Ms. Marie Mueller  
**CLAYTON GROUP SERVICES INC.**  
3140 Finley Road  
Downers Grove, IL 60515

Project ID: 15-04183.00-003  
First Environmental File ID: 35397-09  
Date Received: August 20, 2004

Dear Ms. Mueller:

The above referenced project was analyzed as directed on the enclosed chain of custody record.

**PROJECT SUMMARY**

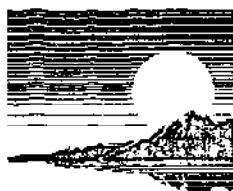
Analyses were performed in accordance with the methods found in the USEPA publication: Test Methods for Evaluating Solid Waste, Physical/Chemical Methods, SW-846, 3<sup>rd</sup> Edition, December 1996. Specific method references are listed on the Analytical Report.

All analyses were performed within established holding times, and all Quality Control criteria as outlined in the methods and current IL ELAP/NELAP have been met. QA/QC documentation will remain on file for future reference.

I thank you for the opportunity to be of service and look forward to working with you again in the future. Should you have any questions regarding any of the enclosed analytical data, please contact me at (630) 778-1200.

Sincerely,

William H. Mottashed  
Project Manager



# First Environmental Laboratories, Inc.

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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 35401  
Sample Description: MW1-081904  
Lab File ID: 35397-09

Date Received: 08/20/04  
Date Taken: 08/19/04  
Time Taken: 11:10  
Date Reported: 08/27/04

Analyte	Result	Units	Flags
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### Polynuclear Aromatic Compounds Method 3510C/8270C

Preparation Date 08/24/04

Analysis Date: 08/26/04

Naphthalene	< 10	ug/L	
Acenaphthylene	< 10	ug/L	
Acenaphthene	< 10	ug/L	
Fluorene	< 2	ug/L	
Phenanthrene	< 5	ug/L	
Anthracene	< 5	ug/L	
Fluoranthene	< 2	ug/L	
Pyrene	< 2	ug/L	
Benzo[a]anthracene	< 0.13	ug/L	
Chrysene	< 1.5	ug/L	
Benzo[b]fluoranthene	< 0.18	ug/L	
Benzo[k]fluoranthene	< 0.17	ug/L	
Benzo[a]pyrene	< 0.2	ug/L	
Indeno[1,2,3-cd]pyrene	< 0.3	ug/L	
Dibenz[a,h]anthracene	< 0.3	ug/L	
Benzo[g,h,i]perylene	< 0.4	ug/L	

Analyte	Result	Units	Date Analyzed	Method
Arsenic	<0.002	mg/L	08/24/04	3010A/6010B
Barium	0.057	mg/L	08/24/04	3010A/6010B
Cadmium	<0.001	mg/L	08/24/04	3010A/6010B
Chromium	<0.001	mg/L	08/24/04	3010A/6010B
Lead	<0.002	mg/L	08/24/04	3010A/6010B
Mercury	<0.0005	mg/L	08/23/04	7470A
Selenium	<0.002	mg/L	08/24/04	3010A/6010B
Silver	<0.001	mg/L	08/24/04	3010A/6010B



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 35399  
Sample Description: MW2-081904  
Lab File ID: 35397-09

Date Received: 08/20/04  
Date Taken: 08/19/04  
Time Taken: 10:00  
Date Reported: 08/27/04

Analyte	Result	Units	Flags
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### Polynuclear Aromatic Compounds Method 3510C/8270C

Preparation Date 08/24/04

Analysis Date: 08/26/04

Naphthalene	< 10	ug/L	
Acenaphthylene	< 10	ug/L	
Acenaphthene	< 10	ug/L	
Fluorene	< 2	ug/L	
Phenanthrene	< 5	ug/L	
Anthracene	< 5	ug/L	
Fluoranthene	< 2	ug/L	
Pyrene	< 2	ug/L	
Benzo[a]anthracene	< 0.13	ug/L	
Chrysene	< 1.5	ug/L	
Benzo[b]fluoranthene	< 0.18	ug/L	
Benzo[k]fluoranthene	< 0.17	ug/L	
Benzo[a]pyrene	< 0.2	ug/L	
Indeno[1,2,3-cd]pyrene	< 0.3	ug/L	
Dibenz[a,h]anthracene	< 0.3	ug/L	
Benzo[g,h,i]perylene	< 0.4	ug/L	

Analyte	Result	Units	Date Analyzed	Method
Arsenic	<0.002	mg/L	08/24/04	3010A/6010B
Barium	0.142	mg/L	08/24/04	3010A/6010B
Cadmium	<0.001	mg/L	08/24/04	3010A/6010B
Chromium	<0.001	mg/L	08/24/04	3010A/6010B
Lead	<0.002	mg/L	08/24/04	3010A/6010B
Mercury	<0.0005	mg/L	08/23/04	7470A
Selenium	<0.002	mg/L	08/24/04	3010A/6010B
Silver	<0.001	mg/L	08/24/04	3010A/6010B



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 35397  
Sample Description: MW3-081904  
Lab File ID: 35397-09

Date Received: 08/20/04  
Date Taken: 08/19/04  
Time Taken: 8:30  
Date Reported: 08/27/04

Analyte	Result	Units	Flags
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### Polynuclear Aromatic Compounds Method 3510C/8270C

Preparation Date 08/24/04

Analysis Date: 08/26/04

Naphthalene	< 10	ug/L	
Acenaphthylene	< 10	ug/L	
Acenaphthene	< 10	ug/L	
Fluorene	< 2	ug/L	
Phenanthrene	< 5	ug/L	
Anthracene	< 5	ug/L	
Fluoranthene	< 2	ug/L	
Pyrene	< 2	ug/L	
Benzo[a]anthracene	< 0.13	ug/L	
Chrysene	< 1.5	ug/L	
Benzo[b]fluoranthene	< 0.18	ug/L	
Benzo[k]fluoranthene	< 0.17	ug/L	
Benzo[a]pyrene	< 0.2	ug/L	
Indeno[1,2,3-cd]pyrene	< 0.3	ug/L	
Dibenz[a,h]anthracene	< 0.3	ug/L	
Benzo[g,h,i]perylene	< 0.4	ug/L	

Analyte	Result	Units	Date Analyzed	Method
Arsenic	0.006	mg/L	08/24/04	3010A/6010B
Barium	0.295	mg/L	08/24/04	3010A/6010B
Cadmium	<0.001	mg/L	08/24/04	3010A/6010B
Chromium	<0.001	mg/L	08/24/04	3010A/6010B
Lead	<0.002	mg/L	08/24/04	3010A/6010B
Mercury	<0.0005	mg/L	08/23/04	7470A
Selenium	<0.002	mg/L	08/24/04	3010A/6010B
Silver	<0.001	mg/L	08/24/04	3010A/6010B



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 35403  
Sample Description: MW4-081904  
Lab File ID: 35397-09

Date Received: 08/20/04  
Date Taken: 08/19/04  
Time Taken: 12:01  
Date Reported: 08/27/04

Analyte	Result	Units	Flags
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### Polynuclear Aromatic Compounds Method 3510C/8270C

Preparation Date 08/24/04

Analysis Date: 08/26/04

Naphthalene	< 10	ug/L	
Acenaphthylene	< 10	ug/L	
Acenaphthene	< 10	ug/L	
Fluorene	< 2	ug/L	
Phenanthrene	< 5	ug/L	
Anthracene	< 5	ug/L	
Fluoranthene	< 2	ug/L	
Pyrene	< 2	ug/L	
Benzo[a]anthracene	< 0.13	ug/L	
Chrysene	< 1.5	ug/L	
Benzo[b]fluoranthene	< 0.18	ug/L	
Benzo[k]fluoranthene	< 0.17	ug/L	
Benzo[a]pyrene	< 0.2	ug/L	
Indeno[1,2,3-cd]pyrene	< 0.3	ug/L	
Dibenz[a,h]anthracene	< 0.3	ug/L	
Benzo[g,h,i]perylene	< 0.4	ug/L	

Analyte	Result	Units	Date Analyzed	Method
Arsenic	<0.002	mg/L	08/24/04	3010A/6010B
Barium	0.069	mg/L	08/24/04	3010A/6010B
Cadmium	<0.001	mg/L	08/24/04	3010A/6010B
Chromium	<0.001	mg/L	08/24/04	3010A/6010B
Lead	<0.002	mg/L	08/24/04	3010A/6010B
Mercury	<0.0005	mg/L	08/23/04	7470A
Selenium	<0.002	mg/L	08/24/04	3010A/6010B
Silver	<0.001	mg/L	08/24/04	3010A/6010B





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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 35407  
Sample Description: MW5-081904  
Lab File ID: 35397-09

Date Received: 08/20/04  
Date Taken: 08/19/04  
Time Taken: 14:20  
Date Reported: 08/27/04

Analyte	Result	Units	Flags
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### Polynuclear Aromatic Compounds Method 3510C/8270C

Preparation Date 08/24/04

Analysis Date: 08/26/04

Naphthalene	< 10	ug/L	
Acenaphthylene	< 10	ug/L	
Acenaphthene	< 10	ug/L	
Fluorene	< 2	ug/L	
Phenanthrene	< 5	ug/L	
Anthracene	< 5	ug/L	
Fluoranthene	< 2	ug/L	
Pyrene	< 2	ug/L	
Benzo[a]anthracene	< 0.13	ug/L	
Chrysene	< 1.5	ug/L	
Benzo[b]fluoranthene	< 0.18	ug/L	
Benzo[k]fluoranthene	< 0.17	ug/L	
Benzo[a]pyrene	< 0.2	ug/L	
Indeno[1,2,3-cd]pyrene	< 0.3	ug/L	
Dibenz[a,h]anthracene	< 0.3	ug/L	
Benzo[g,h,i]perylene	< 0.4	ug/L	

Analyte	Result	Units	Date Analyzed	Method
Arsenic	<0.002	mg/L	08/24/04	3010A/6010B
Barium	0.096	mg/L	08/24/04	3010A/6010B
Cadmium	<0.001	mg/L	08/24/04	3010A/6010B
Chromium	<0.001	mg/L	08/24/04	3010A/6010B
Lead	<0.002	mg/L	08/24/04	3010A/6010B
Mercury	<0.0005	mg/L	08/23/04	7470A
Selenium	<0.002	mg/L	08/24/04	3010A/6010B
Silver	<0.001	mg/L	08/24/04	3010A/6010B



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## Analytical Report

Client: CLAYTON GROUP SERVICES  
Project ID: 15-04183.00-003  
Sample Number: 35405  
Sample Description: MW6-081904  
Lab File ID: 35397-09

Date Received: 08/20/04  
Date Taken: 08/19/04  
Time Taken: 13:10  
Date Reported: 08/27/04

Analyte	Result	Units	Flags
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### Polynuclear Aromatic Compounds Method 3510C/8270C

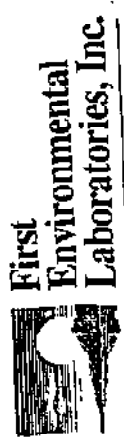
Preparation Date 08/24/04

Analysis Date: 08/26/04

Naphthalene	< 10	ug/L	
Acenaphthylene	< 10	ug/L	
Acenaphthene	< 10	ug/L	
Fluorene	< 2	ug/L	
Phenanthrene	< 5	ug/L	
Anthracene	< 5	ug/L	
Fluoranthene	< 2	ug/L	
Pyrene	< 2	ug/L	
Benzo[a]anthracene	< 0.13	ug/L	
Chrysene	< 1.5	ug/L	
Benzo[b]fluoranthene	< 0.18	ug/L	
Benzo[k]fluoranthene	< 0.17	ug/L	
Benzo[a]pyrene	< 0.2	ug/L	
Indeno[1,2,3-cd]pyrene	< 0.3	ug/L	
Dibenz[a,h]anthracene	< 0.3	ug/L	
Benzo[g,h,i]perylene	< 0.4	ug/L	

Analyte	Result	Units	Date Analyzed	Method
Arsenic	<0.002	mg/L	08/23/04	3010A/6010B
Barium	0.076	mg/L	08/23/04	3010A/6010B
Cadmium	<0.001	mg/L	08/23/04	3010A/6010B
Chromium	<0.001	mg/L	08/23/04	3010A/6010B
Lead	<0.002	mg/L	08/23/04	3010A/6010B
Mercury	<0.0005	mg/L	08/23/04	7470A
Selenium	<0.002	mg/L	08/23/04	3010A/6010B
Silver	<0.001	mg/L	08/23/04	3010A/6010B

CHAIN OF CUSTODY RECORD



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Naperville, Illinois 60563  
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E-mail: info@firstenv.com  
IEPA Certification# 100292

Company Name: Clayton Group Services  
Street Address: 3140 Finley Road  
City: Downers Grove  
Phone: 630-795-3200  
Send Report To: Marie Mueller  
Sampled By: Marie Mueller  
State: IL Zip: 60515  
Fax: 630-795-1130

Matrix Codes: S = Soil W = Water O = Other		Analyses		Comments	Lab I.D.
Date/Time Taken	Sample Description	Matrix	Total Metals (Pb, Cu, Ni, V, Cr, Mn, Fe, Al, Zn, Cd, Co, Ni, Pb, As, Se, Hg, Mo, Ag, Bi, Sb, Sn, Ti, W, Ba, Ca, Mg, K, Na, Li, Rb, Cs, Fr, Sr, Zr, Hf, Ta, Nb, Bi, Sb, Sn, Ti, W, Ba, Ca, Mg, K, Na, Li, Rb, Cs, Fr)		
8/19/04 0830	MW3-081904	W	X		35357
0900	MW3-081904	W	X		9%
1000	MW2-081904	W	X		9%
1025	MW2-081904	W	X		400
1110	MW1-081904	W	X		01
1125	MW1-081904	W	X		07
1201	MW4-081904	W	X		03
1230	MW4-081904	W	X		04
1310	MW6-081904	W	X		05
1332	MW6-081904	W	X		06
1420	MW5-081904	W	X		07
1437	MW5-081904	W	X		08
	Trip Blank	W	X		09

Cooler Temperature: \_\_\_\_\_ °C  
Received within 6 hrs. of collection: \_\_\_\_\_

Standard TAT

Notes and Special Instructions: \_\_\_\_\_

Relinquished By: Marie Mueller Date/Time: 8/19/04 Received By: [Signature] Date/Time: 8/20/04  
Relinquished By: \_\_\_\_\_ Date/Time: \_\_\_\_\_ Received By: \_\_\_\_\_ Date/Time: \_\_\_\_\_